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ABSTRACT

Recent developments have increased the need for both theoretical and practical dialogues concerning children's attention and activity levels. This book explores the complex issues and concerns in helping children with attention deficit disorder. The book is organized in three major sections. The first section describes current issues about children's attention and activity levels. The development of attention, medical diagnoses, educational assessment and current educational practices are described. The second section examines changing theoretical and applied perspectives, including the impact of teacher philosophy on classroom structure, as well as expectations and theoretical shifts in our understanding of children. The third section makes practical suggestions for dealing with attention and activity levels. Developmentally appropriate practice, specific strategies for working with students, and recommendations for working collaboratively with a wide variety of families are addressed. The book concludes with a look at possible directions these issues will take in the future. (JPB)

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No Easy Answers

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Helping Children with Attention and Activity Level Differences

PS 026718

Jerry Aldridge, E. Anne Eddowes and Patricia Kuby

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No Easy Answers

Helping Children with Attention and Activity Level Differences

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Prologue

Chris was active, even before he was born. At birth, he was jaundiced and needed light treatments before he could go home. Chris continued to be very active in preschool. Melinda, Chris's mom, describes his preschool behavior as "loud" and sometimes "out of control." "We never knew what to expect from him. We always had to watch him closely because we never knew what he would do next." Once, when he was 4, Chris pushed a girl into the "duck pond" on a dare from an older child.

Sitting still was always difficult for Chris. When he was required to sit during church, he would entertain himself by separating the foil from gum wrappers and playing with the separate pieces.

When Chris was 5, he started to get very angry at times. One time, he became upset because he wanted to sit in the front seat of his parents' new van, but one of his older sisters got to the front seat first. Without warning, Chris turned around and bit a hole in the fabric of the seat he was in. Melinda did not realize the significance of Chris's impulsivity, however, because she had not read anything about AD(H)D or about attention or activity level differences.

There have been a lot of ups and downs in Chris's school experiences. When he was 3, Melinda started taking him to a Mother's Day Out program. She soon realized that some special teachers knew how to handle Chris, while others "did not have a clue." Melinda wants everyone to know that "nurturing teachers who were tuned in to how to relate to children had very few problems with Chris. Those who were very authoritarian and expected him to sit at a table and work quietly, had great difficulty with him. There would be a battle from the first day. This concern about teachers still applies to Chris now that he is entering high school. I use this criterion when looking at the teachers he needs—even to this day."

Chris is just one of many children with attention and activity level differences. Children's attention and activity levels have always interested and concerned parents and educators. Recent developments, however, have increased the need for both theoretical and practical dialogues concerning attention and activity levels. These developments involve: 1) medical issues, 2) educational concerns, 3) changing theoretical perspectives, 4) family issues, and 5) political and cultural factors.

The medical identification of children with severe attention and activity level differences has become an issue as we approach the new millennium. More and more children are labeled with Attention Deficit (Hyperactivity) Disorder. Currently, AD(H)D is considered a major health problem, with approximately 4 percent of the school-age population identified as AD(H)D. Of the children iden-

tified as AD(H)D, 80 percent or more are boys (Pellegrini & Horvat, 1995). There is no doubt that the number of children considered to have AD(H)D is on the increase. Some school systems report that as many as 10 percent of their children are on Ritalin (methylphenidate hydrochloride) and pharmacists report difficulty in meeting the increased demand for this drug.

The number of school issues related to children's attention and activity levels is mind-boggling. Some of these concerns include school identification and service, contextual variables, developmental concerns, individual and cultural variations, and teleological issues. How children are identified for services is a related issue. With the advent of inclusive education, most children with attention and activity level differences (including those with ADHD) will receive the bulk of their education in regular classrooms.

Most children with attention and activity level differences (including those with ADHD) will receive the bulk of their education in regular classrooms.

At the same time, there has been a theoretical shift among educators and psychologists about how attention and activity develop. We have moved from predominantly organismic paradigms (see Gesell, 1925), in which problems were viewed as inherent in the organism, through mechanistic orientations (see Skinner, 1974), in which problems were explained through predominantly environmental variables. Today, educators perceive the development of attention and activity levels as more complex and interactive. We have moved into a developmental contextual perspective (see Bronfenbrenner, 1989; Ford & Lerner, 1992; Lerner, 1986; Vygotsky, 1978), in which development, both typical and different, is the result of interactions between persons and their environments. From this perspective, the source of development is neither the child nor the context, but rather an interaction between the two. This theoretical shift may lead to alternative perspectives on children's attention and activity levels.

Adding to the complexity of attention and activity level concerns, the family structure has changed dramatically over the past 50 years. We have moved from the "Leave it to Beaver" nuclear family of the Modern Era to the "Yours, Mine and Ours" permeable family of the Postmodern Period (Elkind, 1995). More families are headed by single parents and in the vast majority of two-parent households, both parents work full time. Possible correlations between these family structure changes and the number of children identified as AD(H)D need to be explored more closely. Often, families are blamed for problems that are well beyond their scope.

In the broader context of the United States, children's attention and activity levels can be addressed from social, political and cultural perspectives. Political agendas often contain an emphasis on back to the basics, standardized tests, skill-and-drill orientation and more traditional views of childhood. Politicians incorporate these ideas into their platforms, promising higher test scores and better discipline in the schools. As a result, more minority students are in special education and many school systems have adopted a deficit model. Often, what teachers believe is best for children is vastly different from a politician's ideas. How children with attention and activity level differences should be treated and the type of educational experiences they should have must be addressed within this political framework.

All of these issues and concerns make the development of attention and behavior a particularly complex issue. This book is an exploration of that very complexity. We often have said, "If we had all the answers to attention, activity levels or AD(H)D we would have a yacht in the Caribbean because everyone seems to be looking for quick fixes and easy answers." Consequently, we developed this book using the following assumptions:

1. There are no quick fixes or easy answers when addressing children's attention and activity level differences.
2. One way to approach the complexity of this issue is to establish a dialogue about current issues, changing theoretical perspectives, and practical, "real world" suggestions for working with children who have attention and behavior differences.
3 As with most current education concerns, there are multiple viewpoints, voices and ideas. Allowing as many voices as possible to be heard is more helpful than preaching one particular dogma. Physicians, teachers, administrators, parents and the children themselves all have useful contributions to make.
4. While trying to present as many viewpoints as possible, we also acknowledge that no text is written from a neutral perspective. With this in mind, we have tried to address the topic using a *strengths* model as opposed to a *deficit* one. So many of us have watched a "high-strung" 2- or 3-year-old move about from place to place and have said, "If only we could harness that energy." In this book we attempt to explore that possibility.
5. Another salient assumption we make is that we must stop blaming children for something that so many people believe is "inside" them. Children live, grow and interact in multiple contexts. It is these contexts and their "goodness-of-fit" with children that so inform, guide and affect children's attention and activity levels.

When we first began researching this subject we found so many resources that we thought, "Why on earth do we need another book about attention, activity or

AD(H)D?" Wrestling with this question made us determined to approach the text with something new. Consequently, we addressed the issues from multiple perspectives, listened to many voices—especially children's voices—and focused on contextual issues, including political ones that have shaped the current education climate.

This book is organized in three major sections. The first section describes current issues about children's attention and activity levels. The development of attention, medical diagnoses, educational assessment and current educational practices are described. The second section examines changing theoretical and applied perspectives, including the impact of teacher philosophy on classroom structure, as well as expectations and theoretical shifts in our understanding of children. Finally, the third section is an attempt to make practical suggestions for dealing with attention and activity levels. Developmentally appropriate practice, specific strategies for working with students, and recommendations for working collaboratively with a wide variety of families are all addressed. We conclude with directions for the future—where do we go from here as we enter a new millennium?

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Section One

Current Issues Concerning Children's Attention and Activity Levels

Chapter 1

Understanding the Development of Attention

A young baby is aroused from a nap by the sound of his mother's voice. As he becomes aware of her face above his crib, he is distracted by the leaves outside the window that make moving shadows on the wall of the room. He turns his attention from his mother's face toward the light and shadows. Then, he hears a sound outside the room and turns his head in that direction. His attention does not remain for long on any one stimulus. This is typical behavior for his age.

Children are born with the ability to learn how to attend and concentrate. The key word here is "learn." The attention behavior that we expect of school children must be developed. It is not present at birth. Although a number of factors that are present at birth contribute to the development of attention, the ability to remain focused for a long period of time is not innate. It is a skill that must be learned in interaction with objects and people in the environment (Yendovitskaya, 1971).

Attention has been defined in many ways. The popular term used to describe attention ability in children is "attention span." This phrase usually refers to the capacity for sustaining attention on a particular stimulus or activity. It is the ability to select from a range of stimuli, internal and/or external, and to respond to those that are relevant to the ongoing activity while disregarding others (Eddowes & Aldridge, 1990; Goldenson, 1970; Schachtel, 1959; Shaffer, 1989).

Before a child can begin to attend, something must catch the child's interest through one of the senses. Young children's senses function rather well and include vision, audition, taste, smell, touch, temperature and pain (Shaffer, 1989). When something impinges on one of the senses, the infant will first respond with an orienting reflex or response. The orienting reflex is necessary for a person to "come to attention." With the onset of this reflex, attention begins. Only then can a child learn to sustain attention to the event (Mostofsky, 1968).

The Development of Sustained Attention

A newborn infant is completely dependent upon adults for fulfillment of needs. As the infant begins to associate his or her parents with comfort, familiarity and consistency, the infant begins to develop a sense of basic trust in the world (Erikson, 1963). This sense of trust is closely related to the development of sustained attention. If the infant feels secure in knowing that basic needs will be met because they have been met in the past, he or she will be free to attend to other environmental stimuli. On the other hand, infants whose attention is focused on stimuli such as hunger pains, the discomfort of wet diapers, or the uncertainty of inconsistent love and care will be unable to give sustained attention to objects and

events that evoke curiosity, play or exploratory contacts (Schachtel, 1959).

The interaction between the young child and a socializing adult is thought by some (Millar, 1968; Yendovitskaya, 1971) to be a main factor in the establishment and development of sustained attention. During such reciprocal interaction, it is possible for the adult to capture the child's attention and to help the child organize and integrate the activity. The adult shows the child how to focus on one sensory modality at a time (Healy, 1987). For example, 12-month-old infants enjoy having an adult sing to them. When singing, it is helpful to face the child and sing familiar songs such as nursery rhymes. The child will focus on the singing and may try to sing along. With repeated focused experiences such as this, a wider variety of objects and events will begin to hold the child's attention.

Not all young children are able to attend at the same level—some variance will show, as a function of age. Generally, infants and toddlers have relatively short attention spans compared with somewhat older children. They like to practice the physical skills of crawling, standing and walking. Three-year-olds' interests are expanding, and those children are usually able to spend more time on selected activities. With their increasing fine motor ability, they can use blocks and art media to enhance both cognitive and creative skills. If given the opportunity, most 4- and 5-year-olds can focus their attention for longer periods of time on an activity that interests them. They may enjoy simple card and board games, for example. As children grow older, they can begin working on projects together (Bredekamp & Copple, 1997; Katz & Chard, 1989; Taylor, 1985).

If a child has trouble sustaining attention to a task or activity, both the age of the child and the context should be examined. Sometimes, the child is being asked to engage in an activity that is not appropriate for his or her age or developmental level (Bredekamp & Copple, 1997; Eddowes & Aldridge, 1990). An inappropriate environment is one in which too much is expected of children, too soon. There is a difference between the length of time a child can spend on an individual self-selected activity and that which they can spend on a large group activity chosen by an adult. Children should be able to sustain attention in large group activities for double their age in minutes (Guddemi, 1988). With this rule, a 3-year-old would be able to attend in an adult-directed, whole group activity for six minutes and a 7-year-old for 14 minutes. Children who are engaged in tasks they have chosen themselves, however, will probably be able to attend for a longer time.

Quite a range of attention behavior can be considered normal. Within this range, there are varying degrees of attention ability. Although this ability varies widely among children (or even within one child between tasks), the behavior can still be within the normal range. Many children who are thought to have attention problems may really be in the normal range. The program, or specific activities within the program, may be the cause of the problem for some children (Eddowes & Ralph, 1998; Landau & McAninch, 1993; Rosenberg, Wilson & Legenhausen, 1989). See Figure 1.

FIGURE 1:

ATTENTION BEHAVIOR

abnormal / high attention——————————low attention / abnormal

(normal range)

(Eddowes & Ralph, 1998)

An important distinction needs to be made. Allowing children to choose their own activities, as opposed to following adult-selected ones, often makes a tremendous difference. Often, adults will say that a child has a short attention span. In reality, the behavior is brought about because adults have unrealistic expectations. Although children may have long attention spans with self-chosen activities, they still may need to learn how to pay attention to adults. That is not the same thing, however, as having a short attention span at a level akin to having AD(H)D.

Children with low attention ability usually have the problem in *every* context. They cannot attend very long in any situation. They are the "flitters" who go from one activity to the next. Some of these children may be on the active end of the continuum, but still in the normal range. Or, they may be actually outside the normal range and have an attention deficit (Eddowes & Ralph, 1998). At the other end of the continuum, children with high attention ability sometimes can become so involved in an activity that they lose awareness of the environment as a whole. If such exclusionary absorption occurs most of the time, it could be a symptom of an abnormal withdrawal from others (Storr, 1988).

A normal range of individual attention behavior exists at any age. Some children can focus on objects from an early age. They learn to block out extraneous information and are persistent in the completion of a task or activity. Others may be more people-oriented. They seek interpersonal contacts and are less interested in quiet independent activities (Henken & Whalen, 1989). Children who cannot focus on individual activities may not have the needed skills to be successful in later pursuits. Sometimes, a little coaching from an adult or more experienced peer will help (Bodrova & Leong, 1996).

As children develop, they must have sufficient time, space and freedom to become involved enough with objects and activities in the environment to fully explore and master them (Erikson, 1963). If children do not have time to get really involved with an activity before they are asked to stop, the interruption creates fragmentation. For example, one of the authors visited a preschool classroom where the teacher had set up learning centers and directed the children to change centers every 10 minutes by ringing a bell. The visitor noticed that one group of three children in the block center was just sitting there. She asked them, "Wouldn't you like to make something with the blocks?" The children looked at one another, and finally one of them said, "You don't understand. We won't have time. As soon as we start to make something the teacher will ring the bell and

we'll have to go somewhere else." This practice limits sustained attention. When a child is engaged in a task, adults should not disrupt the activity unless absolutely necessary. Furthermore, they should intervene only when a child is having some kind of problem (Jacobvitz & Sroufe, 1987).

Repetition plays an important part in the development of sustained attention. Having the same story read over and over and playing the same games with the same toys gives the child a feeling of constancy, security and mastery. After experiences are repeated enough times, the child may begin improvising and changing them. This helps to sustain interest, gives practice in focusing attention and helps to screen out distractions (Kagan & Kogan, 1970).

With the assistance of adults, attention behavior should be developing throughout the early years. To attend successfully, several things must take place. A person must *1) come to attention (the* orienting *reflex), 2) focus attention, 3) maintain attention, 4) extend attention and 5) resist distractions* (Eddowes & Aldridge, 1990). Adults can help children learn appropriate attention behaviors by talking with them, pointing things out to them and planning activities that help them sustain their attention. When there are signs of developmentally inappropriate inattention outside the normal range, there may be cause for alarm. No matter what the attention problems, however, children still have to *learn* to attend, and the adults in their world must help them. For some children it is an easier task than for others.

Reasons for Differences in Attention Behavior

Evidence supports a hereditary predisposition for inattention. In some cases, parents of inattentive children have been found to be more inattentive and impulsive than other adults of a similar age (Barkley, 1981). It is hard to determine, however, whether the children's inattentive behavior is truly genetic, or is environmental and caused by a lack of a secure base and/or a lack of parental reciprocal interaction to assist them in focusing their attention. More recent research in developmental contextualism highlights this reciprocal interaction (see Ford & Lerner, 1992). However, this does not negate a hereditary predisposition for inattention. Rather, it becomes only one of multiple, interacting factors (Bronfenbrenner, 1989).

Difficulties during pregnancy or delivery, which could lead to some degree of brain damage, might be contributing factors (Ross & Ross, 1976). Infections and diseases, such as encephalitis, also might be factors, as could the effect of drugs (Southern Association on Children Under Six, 1991). Any of these factors could cause children to be at risk for problems in developing sustained attention.

Attention span, persistence and distractibility have been identified as characteristics related to the child's overall temperament. The type of temperament-environment interactional process that a child experiences, however, could contribute to differences in attention development (Bronfenbrenner, 1989; Chess & Thomas, 1973; Thomas & Chess, 1980). Parental response to different temperament styles is important. Parents who tolerate temperament differences tend to

be more consistent in setting safety limits. They also seem to be better at discussing the needs of peers, as well as providing for choices. Researchers found that all of these parental characteristics have a positive effect on children's attention and activity levels (Ross & Ross, 1976).

Physical problems such as vision or hearing loss can cause hyperactive and/or inattentive behavior (Rosenberg, Wilson & Legenhausen, 1989). Some experts believe that allergy-producing substances cause hyperactivity and distractibility. Food dyes and additives have been suspect, as have refined sugars, milk and other foods. Pollens from plants, animal fur and some man-made products may contribute to problems for some children (Bradway, 1987). Lead poisoning also has been examined as a potential contributing factor (Barkley, 1981).

Many environmental conditions can cause inattention and distractibility. Caregiving variables can be factors, such as the disruption of an infant's ongoing activity rather than adapting the timing of interventions to match the baby's state, mood and current interests (Jacobvitz & Sroufe, 1987). Overstimulation by provoking, teasing and frustrating the child during completion of a task can contribute to the child's later difficulties in controlling impulses and attending to tasks (Sroufe, Jacobvitz, Mangelsdorf, DeAngelo & Ward, 1985).

Family size, crowding and excessive noise in the home environment may affect development of focused or sustained attention (Heft, 1985). Children who have few interesting objects in their homes, cramped play space and an abundance of sibling or peer interactions may have little experience with sustaining their attention to a task. They may find it difficult to control distractions.

School programs also can contribute to inattentive behavior. Some teachers force young children to engage in adult-chosen learning activities, whether or not the children are interested. Even when teachers allow some choice, they may insist that children change activities every 10 to 15 minutes. This practice does not allow children time to learn to focus their attention and complete an activity (Bredekamp & Copple, 1997).

Fortunately, educators are rapidly learning more appropriate ways to develop and sustain attention, often from people in other parts of the world. For example, the Reggio Emilia Schools (a group of schools in Northern Italy in which children's representations are remarkably advanced) have taught us much about the development of attention. Children's representations (i.e., drawings) within the Reggio Emilia approach are used as springboards for revision and expansion (Edwards, Gandini & Forman, 1993). Children continually revisit their drawings and numerous other forms of representation to develop their abilities and attention. In traditional school programs in the United States, representations tend to be more of a "one-shot deal." If children ever draw, these art pieces are taken home and placed on the refrigerator, or thrown away. Another difference between the programs' philosophy is that the content of the adult-child interactions in Reggio Emilia classrooms is more about the children's work. Children realize that their work is important to adults. In North America, adult-child interactions are more

likely to be about custodial issues, such as cleaning up, lining up and being quiet. We have learned a lot about children's natural development and expansion of their attention through the representations and the adult-child interactions of the Reggio Emilia schools (Katz, 1993b).

Today, numerous ideas and theories abound about the origins and development of attention. Many of these will be discussed later. One theory concerning the history and development of attention, however, deserves mentioning here. Hartmann (1993) suggests that one of the major reasons for attention differences in children and adults lies in the "hunter" versus "farmer" differentiation among people. People who appear to be inattentive may have hunter characteristics. Hunters continually monitor the environment (a behavior that might appear to others as inattention), are capable of changing strategies in an instant, have incredible bursts of energy, "love to hunt, but are easily bored by mundane tasks" (p. 16), live dangerously, and appear impatient. Farmers, on the other hand, are slow and steady in their focus, see the long-range plan, are not easily bored, attend to details, and are observant and patient.

So what does this theory of hunters and farmers have to do with the development of attention? Hartmann's theory serves as a positive model of using a *strengths* model, as opposed to the current *deficit* models so often used for attention and activity discussions. It may be that children who have more difficulty developing attention are those who have more of a "hunter" personality. If Hartmann is right that schools were designed for "farmer" personalities, then we must seek to better accommodate the hunter types!

As we have pointed out in this chapter, many factors can cause differences in the development of attention. Adults in a child's world must be good observers. Sometimes, identifying and correcting a problem is relatively easy. A child with a vision problem, for example, may be inattentive until he or she is fitted with eyeglasses. At other times, the cause of the inattentiveness is more difficult to discern. As stated previously, however, children must *learn* to attend. It is not automatic. Adults need to provide the interactions, encouragement and experiences that support children's development of attention.

Suggestions for Further Reading

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Chapter 2

Assessment and Diagnosis of Children with Attention and Activity Differences

Sometimes activity and attention levels are considered beyond the normal range. When this happens, children often are diagnosed with Attention Deficit (Hyperactivity) Disorder (AD(H)D). This chapter focuses on the medical diagnosis of children with attention and activity levels considered to be beyond what society has defined as "normal." To explore this, we will attempt to answer several important questions. First, what is AD(H)D? Second, why is AD(H)D difficult to medically diagnose? Finally, what types of assessment tools are used and what comprehensive procedures are necessary for accurate diagnoses?

What Is AD(H)D?

The symptoms of what is now considered to be AD(H)D have been discussed for centuries. In the last 100 years, however, references have increased, particularly so in the past 10 years. G. F. Still (1902) described children in England who had problems with "moral control." These children were primarily male and were reported to be overactive, aggressive and uninhibited, yet intellectually curious. He suggested this behavior was primarily the result of minimal brain damage.

During the 1920s, encephalitis and influenza were common. Some of the individuals who survived displayed concentration problems, impulsivity, learning difficulties, overactivity and poor judgment. Brain damage from encephalitis or influenza was blamed for these behavioral characteristics. An important point to remember is that while this cause and effect was assumed, brain damage was medically undetected. The condition was inferred, based on individuals' behavior. This practice resulted in such labels as "minimal brain dysfunction" or "minimal brain damage." Over the years, this nebulous category grew uncontrollably until it incorporated 99 characteristic symptoms (Hinshaw, 1994).

At the same time, the Child Guidance Movement became popular. The theoretical base for the Child Guidance Movement was primarily Freudian or psychoanalytic (psychodynamic). Proponents considered children's behavior problems to be the result of unresolved conflicts. Therefore, a psychoanalytic explanation for activity and attention level differences arose to compete with the organic one. By the 1960s, investigators began to describe more specific behavioral manifestations, using terms like "hyperkinesis" or "hyperactivity."

By 1968, medical diagnosis for numerous psychopathologies relied heavily on the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association [APA], 1968). The 1968 version, known as DSM-II, used the phrase "hyperkinetic reaction of childhood" as a di-

agnostic category. In 1980, DSM-III was published and a diagnosis of attention deficit disorder (ADD) was possible (APA, 1980). This version considered inattention and impulsivity, but reported hyperactivity as secondary to these two behaviors. When the third edition was revised in 1987 (DSM-III-R) the terms changed again (APA, 1987). Essentially, ADHD was a diagnostic criteria based on 14 possible indicators of inattention, impulsivity and hyperactivity.

Finally, in 1994, the DSM-IV criteria for AD(H)D included four different types of AD(H)D (APA, 1994). We have chosen to place the "H" in parentheses because, as you will see, a diagnosis of AD(H)D could be with or without hyperactivity. The four categories from DSM-IV are: 1) Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type, 2) Attention-Deficit Hyperactivity Disorder, Predominantly Hyperactive/Impulsive Type, 3) Attention-Deficit/Hyperactivity Disorder, Combined Type (meaning a combination of 1 and 2 above), and 4) a miscellaneous category for those individuals who did not meet the criteria under the first three categories. To be diagnosed with any of the four subcategories, several other criteria must be met. First, the symptoms must be documented as being present before the age of 7. Second, the symptoms must occur in at least two or more settings (such as home and school). Third, the symptoms must clearly involve impairment in the child's adaptive functioning in social, academic or occupational settings. Finally, an exclusion criteria is used to distinguish AD(H)D from other behavioral differences caused by such conditions as schizophrenia, mood disorders or anxiety disorders.

Why Is AD(H)D Difficult To Diagnose Medically?

In order for AD(H)D to be considered a valid medical or psychiatric disorder, three assumptions must be made. First, it must be possible to differentiate AD(H)D (accurately and reliably) from other conditions. Second, the behavior rating scales must be accurate and reliable and, thus, a major contributor to the diagnosis of AD(H)D. The third assumption is that there is an organic cause for the AD(H)D (something within the child). These assumptions, however, are highly questionable when applied to AD(H)D. The scope of this book does not allow for adequate details concerning the issues about these assumptions. For a detailed analysis of these issues, see Reid, Maag and Vasa (1994).

One thing is certain: AD(H)D is exceptionally difficult to diagnose medically. This is really interesting in light of the rapid increase in the number of children diagnosed with AD(H)D over the past 5 years. Even so, several complex issues remain that make a true medical diagnosis almost impossible to make. First, the medical community has no single effective diagnostic instrument. Second, there is a wide range of what is normal attention and activity. Third, numerous other diagnostic categories share similar characteristics with AD(H)D. Finally, an accurate classification or description must depend upon the extremely complicated and time-consuming process of following up on extensive observations over time and across settings, using multiple sources (including an interdisciplinary team),

implementing a wide range of data collection strategies, and incorporating multiple perspectives (Hinshaw, 1994).

Since no single tool is effective in diagnosis, multiple data should be required. Some physicians ignore this fact, however, and deliver a hasty assessment based on limited office visits. While the practice of a one-shot diagnosis from a brief visit still persists in some cases, a true assessment requires much, much more. A physician should insist upon data from multiple contexts over time.

Compounding the problem is the wide range that characterizes "normal" attention and activity levels among children. Most children exhibit some AD(H)D traits because the typical range of behavior is so broad. The child's age is related to this issue. The younger the child, the more difficult it is to get a handle on either attention or activity. For example, a normal 2-year-old has what we would consider to be a short attention span and a high activity level. Most of us have said at some point, "If we could only bottle the energy of a 2-year-old and use it, just think of what we could accomplish."

In addition, several other diagnostic categories have AD(H)D characteristics. Children with anxiety disorders, schizophrenia, autism, learning disabilities, mental retardation or emotional conflict may exhibit the same behaviors as a child with AD(H)D (Reid, Maag & Vasa, 1994). An appropriate and accurate diagnosis of AD(H)D should rule out these other differences. Such a diagnosis, of course, takes a tremendous amount of time and energy, and may be impossible.

The nature of AD(H)D is such that it is always exhibited in a context. While this is obvious, the pediatrician's office or play room are not typical, natural or everyday contexts for the child. How can a pediatrician go about diagnosing a child's behavior when it is only observed outside of everyday contexts? Beyond the doctor's brief interviews, observations or neurological assessment, the physician must rely on the reports of others who work and associate more directly and continually with the individual. While teachers, parents and the children themselves become important sources for diagnosis, several caveats must be heeded. Children are often too young to be accurate in self reporting, and teachers and parents vary widely in their expectations as to what normal or atypical behavior entails. Still, we cannot stress enough that the best solution for a more accurate diagnosis involves extensive observations over time and across settings, using multiple sources (including an interdisciplinary team), implementing a wide range of data collection strategies, and incorporating multiple perspectives.

What Types of Assessment Tools Are Used and What Procedures Are Necessary for an Accurate Diagnosis?

Medical intervention of AD(H)D is more accurate when based on genetic, biological, familial and sociocultural factors (Hinshaw, 1994). With this in mind, the pediatrician can rely on a host of tools, including rating scales, interviews, behavior observations, tests of cognitive abilities and/or achievement, competency evaluations, peer reports, laboratory observations and ecological assessments.

The most widely used instruments are questionnaires or rating scales—but these are not without serious limitations. A child who is aggressive or acts out may receive biased evaluations from teachers or parents, guided by the hope that the child will be placed on medication in order to change these erratic behaviors. A comprehensive description of rating scales is found in Barkley (1990) and Hinshaw and Nigg (1995). These sources report the most commonly used questionnaires and rating scales. Such rating scales are usually one of the first steps in the diagnostic process.

A diagnosis of AD(H)D can be helpful, but also devastating to a child's self-esteem . . . a child's strengths should be stressed.

In some cases, interviews are conducted. These interviews may be either unstructured or structured. They are most often administered to parents, but can be administered to teachers. Parental interviews are important with regard to a child's history in the areas of cognitive, motor, self-help and language functioning.

Although difficult to arrange and administer, behavior observations *in the child's natural context* are really necessary for a comprehensive medical diagnosis. Behavior teams observe the child in the classroom, on the playground and in other natural settings. Several validated behavior observations are available, including Abikoff, Gittelman-Klein and Klein (1977) and Gadow, Nolan, Sverd, Sprafkin and Paolicelli (1990).

To rule out cognitive challenges as the primary difficulty, a school psychometrist will administer individual intelligence tests such as the Wechsler Intelligence Scale for Children (WISC-III) (Wechsler, 1991) or the Kaufman Assessment Battery for Children (Kaufman & Kaufman, 1983). Children with learning disabilities or mental retardation often exhibit many AD(H)D symptoms.

A diagnosis of AD(H)D can be helpful, but also devastating to a child's self-esteem. For this reason, a child's strengths should be stressed in a medical diagnosis. Physicians might use previously mentioned assessments to point out and describe such strengths.

Other assessments for older children would include peer evaluations, such as a sociogram or other sociometric procedures. AD(H)D children tend to be unpopular in many cases, and so reports from peers can be helpful. Newcomb, Bukowski and Pattee (1993) provide a comprehensive review of sociometric procedures with children.

Laboratory observations are artificial and many procedures are still in experimental stages and, thus, are often inaccurate. They may yield either false negative or false positive evaluations and should be used with caution. They do serve,

however, as one more piece of information that can be used during diagnosis.

Conclusions

As we have seen, the medical diagnosis of children with attention and activity level differences is exceptionally complex. Medical diagnosis of AD(H)D is necessary to determine if prescribing medication is appropriate. The issue of medication, however, opens up a whole new can of worms. Until recently, the overwhelming choice of drugs has been Ritalin (methamphetamine or methylphenidate). In some areas of the country, Ritalin has been overprescribed. School systems report as many as 10 percent or more of their school-age population is on Ritalin. This is also a complicated issue in that the amount of Ritalin needed to help a child adjust for attention difficulties is quite different than the amount of Ritalin necessary to help the same child cope with overactivity.

Unfortunately, it would take another book to explore methylphenidate (Ritalin) in enough detail to do the topic justice. However, three examples of its complexity will be mentioned here. These concern big business, discrimination and drug abuse. Manufacturing the drug

> is a $400-million-a-year industry. And it has grown by $135 million in just the past two years. The Swiss company that makes the most popular brand, Ritalin, has pressured the U.S. government to increase its production and has helped finance an attention deficit support group that promotes its use. (Lang & O'Connell, 1997, p. 1)

Zoldan (1997) reported "those taking the drug after age 12 might just as well give up dreams of becoming a top gun pilot, a paratrooper, a submarine skipper or military hero. Uncle Sam doesn't want them" (p. 1). Unfortunately, the United States military is exempt from complying with the American with Disabilities Act, and so it can discriminate against individuals who have taken Ritalin after age 12.

Since Ritalin is a stimulant, some youth sell their prescriptions to make money. Adolescents are now abusing Ritalin at an alarming rate. And so, we can add substance abuse to the list of the problems associated with drugs used to treat individuals with AD(H)D.

As the title of this book suggests, there are no easy answers. Despite all of the problems described in this chapter, medication can be helpful and necessary. Let's go back to Chris, whose story we highlighted in the prologue. Chris was having tremendous difficulty paying attention when he entered 5th grade. Melinda (his mother) decided to have him tested by a specialist who works with behavior difficulties, especially those associated with AD(H)D. Melinda remembers that when she read the checklist she knew Chris met almost every criterion on the page. After going through the diagnostic process, he was put on a low dose of Ritalin. Tofranil also was prescribed, partly because of Chris's additional problem with depression.

During this time, Chris would go into "rages." Anything could set him off. Once he got into the mood it was hard to calm him down again. He often became violent and destructive. His parents eventually learned when Chris was about to go into a rage and how to steer him away or talk him out of it. At the same time, Chris was undergoing marked physical changes. He was beginning to go through puberty and was growing rapidly. Some of this changed, however, when Chris began taking medication. According to Chris's 5th-grade teacher, his first day on medication was totally different—a huge improvement. He was able to focus on the task at hand and his behavior was much improved, as well.

Even if medical diagnosis is accurate and helpful, it is but the tip of the iceberg. Other issues regarding children's attention and activity levels must be addressed. One of these is current education practices.

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Chapter 3

Current Educational Practices

What happens to children with attention and activity level differences in school? That, of course, depends upon countless issues, including the child's individual characteristics, the nature of the attention or activity differences, the school climate, the teachers the child will encounter, and so on. This chapter addresses current educational practices as related to attention and activity level differences. We have divided the issues around four salient general areas: 1) educational placement, 2) structured strategies for behavior control, 3) strategies to enhance the child's self-regulation and 4) organizational strategies for students.

Educational Placement

What educational services are available for children with attention and activity level differences—specifically those with AD(H)D? First of all, the legal requirements for assessing these children are the same as with any other suspected disability. Parental permission must be given before a child can be tested. Since children with AD(H)D exhibit many of the same characteristics as children with other disabilities, educational services for children with AD(H)D depends partly on the classification they eventually receive.

Children with AD(H)D who do not qualify for special education from a category such as learning disabilities or behavior disorders under the Individuals with Disabilities Education Act of 1990 (IDEA) might receive special education services through the category "Other Health Impaired" (Burcham & DeMers, 1995). If a school system is reluctant to classify children with AD(H)D using the label Other Health Impaired, these students could receive educational modifications through Section 504 of the Rehabilitation Act of 1973, if it is determined that the child's AD(H)D is interfering with learning. In fact, many children with AD(H)D are receiving services today through Section 504. Some school systems have similar procedures for providing services under IDEA and Section 504. Others have separate procedures. More streamlined assessment of the child may occur under Section 504 (Burcham & DeMers, 1995).

Most children with AD(H)D will receive services in regular classrooms. In this age of inclusion, children with AD(H)D spend the majority of their time in regular classrooms. Whatever accommodations are made most likely will occur in the regular school program.

Structured Strategies for Behavior Control

A number of moderate to highly structured strategies are currently being used in classrooms—not only with children who have AD(H)D, but also, in some cases,

with the entire class. These strategies include assertive discipline, behavioral contracts and token economy systems (Bender & Mathes, 1995).

Assertive Discipline. Assertive discipline is a highly structured disciplinary system used in some classrooms (Canter & Canter, 1976). For assertive discipline to be effective in controlling student behavior, four assumptions must be met. First, a teacher must be aware at all times what she wants the class to be doing at any given time. Second, a teacher must be consistent in dealing with student behaviors. Third, students must follow a record-keeping system for keeping up with student behaviors. Finally, teachers must have the support of the school administration and the parents (Bender & Mathes, 1995).

The teacher and students develop and review class rules on a regular basis. Usually, these rules are written in positive terms and posted in the class for everyone to see. Students who "misbehave" receive a warning, after which their name goes on the board or a sheet on the teacher's clipboard. "The teacher must be consistent and provide a negative consequence every time a student exhibits inappropriate behavior" (Bender & Mathes, 1995, p. 231). When a student receives four checks for misbehavior (breaking the classroom rules), he is sent to another classroom to do his work. Canter (1979) recommends applying the system to the entire school so that students can count on consistency and uniformity.

Behavioral Contracts. A behavioral contract is a written agreement signed by the teacher and the student that clearly defines the relationship between the student's behaviors and the consequences of those behaviors (Cullinan & Epstein, 1994). Usually, such contracts have three basic parts: "1) responsibilities (target behaviors), 2) monitoring procedures (ways in which the student's performance is to be observed and recorded), and 3) privileges (reinforcers earned by the student on completion of the responsibilities)" (Cullinan & Epstein, 1994, p. 191).

Token Economy Systems. A token economy system is sometimes used with children who have attention and activity level differences. These are simulated economic systems that use stickers, stars, check marks, play money or some other "currency." Children earn tokens for specified behaviors and may lose them for others.

Bender and Mathes (1995) provide an example of a token economy system used by a 4th-grade teacher. In this elaborate system, Ms. Smith concentrates her efforts on a particular child, in this case, Scott, and defines the target behavior she would like to see him reduce. For Scott it was out-of-seat behaviors. First, Ms. Smith had to define what that meant. If Scott was sitting on one leg, for example, he was considered out-of-seat. If Scott left his seat to ask the teacher for help, however, this was not considered out-of-seat behavior. Ms. Smith then had to tally the number of out-of-seat behaviors Scott exhibited during reading time. Every time Scott would have an out-of-seat episode she would transfer a paper clip from her left pocket to her right pocket. (Apparently, this was supposed to be an easy way to count out-of-seat behaviors.)

After a week, Ms. Smith found that Scott was out of his seat an average of 20

times per day during reading time. She then set up a token economy in which Scott would get a point for every five minutes stayed in his seat. "A timer was placed on his desk, and he was told to use the timer to remind himself to stay in his seat during each 5-minute interval" (Bender & Mathes, 1995, p. 228). Scott could then exchange his earned tokens for prizes, such as extra computer time or free time.

Bender and Mathes went on to point out how well the token economy system worked in reducing Scott's out-of-seat behavior. What is amazing to us is that no mention was made as to why Scott was out of his seat so much during reading time. Was he bored? Was he placed on a reading level that was too high or too low? Was Ms. Smith providing challenging and interesting reading materials?

Strategies To Enhance the Child's Self-regulation

Fortunately, more recent efforts have "focused on helping AD(H)D children to generate for themselves strategies they can use to learn material and to control their own behavior" (Reeve, 1990, p. 76). Two specific strategies teachers have used to help children regulate their own attention and activity levels are cognitive behavior modification and sanctions by reciprocity.

Cognitive Behavior Modification. Cognitive behavior modification is different from traditional behavior modification programs in that cognitive behavior modification advocates seek to make children more aware of their own thinking processes and take more responsibility for their own attention. In one variation of cognitive behavior modification a piano note or some other tone is randomly played during class. When they hear the sound, students are to stop what they are doing and evaluate whether or not they were paying attention when the sound occurred. If they were paying attention they could congratulate themselves. If they were not, they are supposed to remind themselves how important it is to pay attention.

While this approach gives students a little more responsibility for developing and modifying their own behavior, we are, once again, struck by the fact that what children are supposed to be paying attention to is not addressed. Is the work interesting or challenging? Is it developmentally appropriate? Are the children's prior knowledge and experiences used as part of the activity? What, exactly, is going on?

Sanctions by Reciprocity. Sanctions by reciprocity are designed to develop autonomy. A sanction should make children think about their actions. Piaget (1932) described six sanctions by reciprocity. Four of the more salient ones he described are: 1) temporary exclusion from the group, 2) calling children's attention to the direct or material consequences of their actions, 3) depriving children of what they have misused and 4) restitution.

All four of these are natural consequences for a child's inattention or inappropriate activity levels. Temporary exclusion from the group is not the same thing as "time out." In time out, the teacher is in charge. She might say, "Since you are

disrupting circle time by blurting out answers you have to sit in time out for five minutes." Using temporary exclusion, the teacher says, "Since you are disrupting the group, you must leave until you can decide that you can participate without interrupting others." Problems occur, of course, when using sanctions. We will discuss some of the pros and cons of sanctions by reciprocity in more detail in Chapter 7, "Specific Strategies for Working with Students."

Organizational Strategies for Students

> Because students with attention disorders are described as being disorganized, impulsive, distractible, holistic and inattentive, interventions that rely on the student's ability to organize information, to follow multiple sequential steps, or to identify important ideas will probably not be successful, particularly in terms of independent use. (Rooney, 1995, p. 225)

With this in mind, numerous strategies have been developed to help children with attention difficulties organize their time and learning. Some of these include time management help, test-taking strategies, reading strategies and activities to assist in getting the most out of textbooks. For children with attention or activity level differences who have an IEP, learning these strategies may be part of the IEP process. Children with AD(H)D who receive assistance through Section 504 of the Rehabilitation Act of 1973 may also be taught these strategies as part of their program. Or, a good regular education teacher may help every student find ways to best organize and manage their time and learning. (For specific organizational strategies, see Chapter 7.)

Highly structured programs do very little to help children develop and monitor their own attention and activity levels.

Conclusions

Some children with AD(H)D are prescribed a highly structured program in which attempts are made to control their behavior through assertive discipline, behavioral contracts or token economy systems. These programs do very little to help children develop and monitor their own attention and activity levels.

Self-regulation strategies may be used with the goal of helping children become more and more responsible for their own behaviors. Cognitive behavior modification and sanctions by reciprocity are two examples. Also, organizational strategies sometimes are taught to children with AD(H)D. These were developed to help children manage their time and their learning, and structure the content

of what they are learning more efficiently.

By now you are probably saying, "Well, fine, but how do educational practices play out in the real world?" To answer this questions, we return to Chris. Chris's educational experience has been mixed. In an interview, Melinda (Chris's mom) traces his school experience, almost grade by grade. She reports that kindergarten was an adjustment for Chris. His teacher suggested, on the other hand, that Chris was doing better and better. He seemed to enjoy kindergarten and did not want to go to the doctor during school hours, becoming angry if his parents would pick him up early. By November, Chris was doing great. He had adjusted to the structure and to the teacher's expectations. The teacher did mention, however, that Chris had trouble with transitions (i.e., stopping one activity and going to another). He enjoyed drawing and did not like being told to stop and go to something else. He did fine if he was kept busy doing interesting things. In March of kindergarten he had U's on his report card in PE and Music. The principal explained that he was not sitting still as long as the PE and Music teachers wanted. As punishment for nonconformity, playing and talking too much in PE, he would have to sit out on the curb. He would continue to move around more than the teacher wanted him to, causing more problems.

First grade was not too bad, except for Chris's inexperienced teacher, who insisted that Chris learn to color in the lines. His small muscle development was lagging, and he could not color within the lines of the color sheets without a lot of frustration. Chris came home in September crying because he was the only one in the class to receive U's on coloring sheets. Everyone else had their sheets displayed on the wall with good grades. Finally, Chris's teacher, after a little developmentally appropriate practice inservice, began to realize that her expectations and behavior in this situation were inappropriate.

Chris had a kind, nurturing 2nd-grade teacher. She said she understood differences—especially in boys, since she had one herself. She was firm, loving and patient with Chris. He had a good year and Chris's whole family remembers it as such.

Third grade, however, was a disaster. His teacher was impatient, had no sympathy for Chris being any different than the other children, and saw him as a behavior problem. Not surprisingly, Chris's problems escalated throughout the year. He was isolated often for misbehaving and was ridiculed even by the teacher. Chris would sit and do nothing or play with the smallest objects he could find. He said he was bored. He got bored easily, and that was when he would cause problems. He did not complete classwork, instead finding it was more fun to be the class clown. By the spring of that year the teacher was talking about how bright Chris was, but that he had become lethargic. During the same period, Melinda remembers Chris sitting at the kitchen table for about two hours straight, putting together a model car. He did not have an attention problem with that activity because he was not bored. Melinda and Ron (Chris's father) immediately requested that he be tested, mostly to see if he was gifted. The testing was done

in the summer; as a result, he was moved to a magnet school the next year for 4th grade. The 4th-grade teacher was relatively traditional and Chris had a "fair" year.

In 5th grade, Chris's teacher was very traditional, and gave lots of worksheets that required students to find the answers to social studies and science questions on their own. The teacher had no patience with Chris and, according to Melinda, was very negative from the beginning of the year. By the end of the first six weeks, Chris was extremely unhappy. His grades on his report card were his lowest ever, sprinkled with some D's and F's. He was struggling with long division and absolutely hated doing the spelling units for homework. He believed that if he could spell the words correctly he did not need to do the "dumb exercises." Every night he struggled for hours over his homework.

As we reported in Chapter 2, Chris was diagnosed as having AD(H)D in 5th grade. He began receiving services under Section 504 of the Rehabilitation Act of 1973. Soon afterwards, a "504" meeting was held and his homework was reduced. He was allowed to do 10 long division problems instead of 25, and was required to complete only half of the spelling unit. While he still struggled with social studies and science, Melinda believes that after the official diagnosis of AD(H)D the school became much more cooperative—especially Chris's 5th-grade teacher, whose attitude completely changed after the diagnosis. Most of the adjustments the teacher made for Chris were just "good teaching" anyway. Melinda suggested, "No child, especially in a class of very bright children, needs 25 long division problems. If the child can do 10, he can do 25 correctly."

Next came middle school. Several elementary schools fed into one middle school and many children Chris did not know would be his new classmates. Melinda talked with the school counselor at the middle school and together they chose the group of teachers they believed would be most successful with Chris. Melinda talked with Chris's new teachers before school started. Then, as school began, Melinda's husband decided that Chris did not need to be on medication that year. Although she disagreed somewhat, Melinda decided to turn the situation over to the father. After four calls from the principal in one day and a disastrous first six weeks, the father and son decided medication might be helpful after all. By this time, Chris was labeled as a "bad kid" at school. His reputation had suffered.

Chris is very talented musically and by middle school was already playing his dad's trumpet. Unfortunately, the band director at the middle school was a first-year teacher. Band was very unstructured and Chris did not have the coping skills to entertain himself while the band director worked with others. Eventually, Chris dropped out of band.

By 7th grade, Chris was coasting through on medication. He made A's in math and subjects he liked, but he did not do well in courses that required a lot of writing and research. By 8th grade, Chris again decided he did not need medication. After a poor report card at the end of the first six weeks, Chris resumed

taking his medication during school hours. After the next six weeks, however, he decided he wanted to "do it on his own" again and his grades again dropped, resulting in an F average in English.

Chris's school experiences make it obvious that teachers have a tremendous effect on children with attention and activity level differences. A teacher's belief systems and assumptions about learning influence all children, but especially those who are not able to adjust to teachers. This negative effect is heightened when the teachers themselves are unwilling to bend. Chapter four will consider the effect of teacher philosophy on classroom structure and expectations.

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Section Two

Changing Theoretical and Applied Perspectives

Chapter 4

The Effect of Teacher Philosophy on Classroom Structure and Expectations

One hot summer day, a professor of education was getting his home air conditioner repaired. He and the repairman began talking about their jobs. Eventually, the repairman said, "I believe you know my sister-in-law. I think she took one of your courses." He mentioned his sister-in-law's name and, sure enough, she was a former student. Then the repairman aroused the professor's curiosity by saying, "You know, I think my sister-in-law did something really strange with her class last year." He went on to explain, "She called up all of the parents of the children in her kindergarten class and told them to put their kids on Ritalin." This sad, but true, story says a lot about that kindergarten teacher's philosophy and the effect it had on her expectations.

In this chapter we will consider a teacher's ideas about *children*, her notions about *classroom structure*, her beliefs about *curriculum and instruction*, and how all of these factors influence her expectations, especially with regard to children with attention and activity level differences.

A Teacher's Ideas Concerning Children

No teacher is completely objective when considering children. She brings into the classroom certain preconceived notions about what children are like and what they should be like. We will discuss eight different beliefs about children that teachers may have. More important, we will describe how such beliefs influence classroom structure and expectations, particularly with regard to attention and activity levels. While some of the beliefs may seem outdated or naive, we have seen all of them manifested in contemporary classrooms.

Children Are Cute or Precious. One of the most frequent questions we ask prospective teachers is, "Why do you want to become a teacher?" One of the most common answers is, "Oh, I just love children. They're so cute." This idea that children are darling or precious leads to some interesting expectations about teaching. Thinking of children as "cute" often leads to what we call the "cute curriculum," which will be discussed in more detail in the "beliefs about curriculum and instruction" section of this chapter. Jalongo (1996) points out that this perception is an insult to children's intelligence. Furthermore, it has two major drawbacks for classroom structure and expectations. First, children who are cute are praised for superficial reasons. And second, cute children are asked to waste their time with cute activities.

Cute children often receive inappropriate reinforcement. Superficiality seems to reign when teachers see children as cute. Teachers may say such things as,

"Isn't that a cute dress?" or "I just love your hair. It's so precious." They reinforce "cute" comments or "cute" actions. This is evidenced in many classrooms on a daily basis. The teacher may comment to another teacher, in front of the students, something like, "You won't believe what Max said today when I asked the question, 'How do you milk a bee?' He said, 'Well, first you have to have small fingers.' Isn't that cute?" Comments that focus on clothing, physical attributes or funny sayings fail to develop or encourage more important dispositions in children, such as helpfulness and kindness (Katz, 1993a).

Cute children are, of course, asked to do cute things. For example, they might be asked to make a turban out of toilet paper for a multicultural activity. Not only does this activity have nothing to do with learning about other cultures, it is, in fact, insulting to those children and cultures that turbans represent. The children are being encouraged to make cute things for display, rather than studying authentic topics in more depth. Doing cute things in a cute way can be mistaken for real learning activities (Jalongo, 1996).

Children with attention and activity level differences may become lost in all the nonsense of cute activities. They may become easily bored (especially if they are exceptionally bright) or may try to show off to get more attention for being cute. Furthermore, cute behaviors that are rewarded in the early grades may be irritating and disruptive as children approach middle school.

Children Are Miniature Adults. The belief that children are simply smaller adults can be traced back to several periods in history, including an era when children as young as 4 worked in factories or mines (McClinton & Meier, 1978). More recently, the idea that children are miniature adults has resurfaced in dramatic and disastrous ways. We need look no further than the 6-year-old beauty queen who was found dead in her basement or the 2nd-grader who died while flying a plane across the United States.

Today, children's clothing, activities and knowledge, as well as adults' expectations for them can make them seem to be miniature adults (see Elkind, 1981). Children who have attention and activity level difficulties are at a unique risk from such treatment. If these children are expected to sit and listen for long periods of time, their attention limitations can be sorely tested. Children with attention and activity difficulties might have fewer adjustment problems if they are not expected to perform as adults. It is no wonder that teachers who consider children to be little adults also identify children more often as inattentive, overactive and impulsive (Eddowes, Aldridge & Culpepper, 1994).

Children Are Sinful. While labeling children as sinful might seem archaic, it is still quite popular, particularly in some areas of the southern United States. Recently, a minister being interviewed on the radio said he did not want his church school influenced by the state, which had established a "no corporal punishment" guideline for public schools. The preacher explained that "children are born of the devil and they all need the devil beaten out of them."

If a teacher views children as sinful, then any attention and activity level dif-

ferences are likely to be considered bad or sinful behavior in need of correction. Young children and children with disabilities are particularly vulnerable to severe punishment for attention and activity level differences that are within the normal range for their age and circumstances.

Children Are Good and Innocent Until Adults Corrupt Them. Others believe that children are innately good or innocent. This belief can have almost the opposite, yet equally detrimental, effect of viewing children as sinful. If children are good, then they do not need discipline or structure. This is simply not the case. All children need certain amounts of structure and guidance—especially those who might be overactive, impulsive or inattentive. Children should be taught, in developmentally appropriate ways, the social expectations and manners of the society in which they live. If "anything goes" because children are good, they may lose opportunities to learn and develop these necessary social skills.

Children Are Growing Plants. A maturational view of children as growing plants (see Gesell, 1925) has been around since before Rousseau's time. A teacher who holds this philosophy believes that children are capable of directing their own development. If any problems arise in attention or activity levels, these difficulties simply will correct themselves in due time. Consequently, children who need special help and attention (or even medication in extreme cases) may not receive the support and direction they need.

Children Are Property. A few teachers believe that children are property. They appear to have this belief about their own children, and the notion spills over into their classroom. Parents holding this philosophy commonly state, "As long as you live under my roof you'll do what I say. When you can pay your own bills and live outside my house, then you can do what you want to." A teacher with this philosophy may fail to provide opportunities for children to make choices or may not help children with attention and activity differences learn about their own strengths and weaknesses. When children are always told what to do, they seldom have a chance to practice decision-making or to develop their own unique interests and abilities.

Children Are Future Investments. While it is commendable to consider the long-term, this view, taken to the extreme, also can hurt children with attention and activity level troubles. If children are a teacher's ticket to higher standardized test scores, for example, then those who have problems sitting and concentrating for a long time may be resented if they cannot help the teacher fulfill this future investment.

Children Are Persons with Rights. Most state governments certainly do not consider children to have rights. In many states, while a serial killer on death row has the right to due process, a 4th-grader accused of something does not receive the same benefit. Taken to the other extreme, however, this belief could mean that children have the right to do whatever they wish. Once again, children with attention and activity level difficulties may not learn to concentrate or how to channel their activity level in appropriate and exciting ways.

A Teacher's Ideas About Classroom Structure

Just as teachers have varying beliefs about children, they also have particular notions about how classrooms should be structured. Classroom structure can be described in many ways. Here, we will discuss scheduling, transitions and room arrangement.

Scheduling. Daily schedules are a part of every classroom. Some schedules are highly structured to the minute, while others are very open. Most teachers' schedules fall on a continuum somewhere between extremely structured to highly open. Either end of the continuum can be extraordinarily challenging for children with attention and activity level difficulties. The following two examples, taken from actual classrooms, illustrate both ends of the continuum.

Richard is a 3rd-grade teacher who follows a strict schedule. His teaching style is quite traditional. Rather than integrating the language arts or teaching by themes, he breaks up the curriculum into little pieces. Richard's daily classroom schedule looks like this:

8:00-8:15	Class roll; Pledge to the flag; Daily News*
8:15-8:45	Spelling
8:45-9:45	Basal reading period
9:45-10:15	Short recess
10:15-10:45	Mathematics
10:45-11:30	Social studies
11:30-12:05	Lunch
12:05-12:30	Writing (This usually takes the form of handwriting, as opposed to writing workshop)
12:30-1:00	Physical education (Mondays, Wednesdays and Fridays); Music (Tuesday); Art (Thursday)
1:00-2:15	Students begin homework and get ready to go home

*Not recommended for children with attention problems

Richard rarely strays from this schedule. He believes that structure is good for children, especially for those with attention and activity level difficulties. This, however, has not proven to be the case. Students who are inattentive have trouble getting started each period; by the time they are ready to focus, the schedule shifts to another subject. Since Richard follows a rigid, prescribed curriculum, these students fall further and further behind. They also have great difficulties completing their homework, partly because the work has piled up throughout the day.

At the other extreme is Rachel, who teaches 5th grade. Rachel apparently has no schedule. Students decide as a class the themes they would like to study. Then, Rachel lets them work in groups to prepare reports. According to Rachel, the themes keep going until the children are tired of them, after which the cycle repeats itself.

Rachel appears to be quite "laid back" about her schedule and does not let much bother her. One day, one of her more conscientious students commented, "Ms. West, you know we haven't done math in three weeks." Rachel replied, "Well, we'll just take care of that right now. OK, everyone, get out your math books."

Children who are inattentive or overactive have problems in Rachel's class, as well. When other children are researching or discussing the current theme, the inattentive students have a tendency to daydream and "get lost" in the group. Rachel is constantly saying to the overactive ones, "What are you supposed to be doing?" Occasionally, one of them will tell her the truth—"We don't know!"

Of course, as mentioned earlier, most teachers fall somewhere between Richard and Rachel. Their schedules reflect a more balanced approach. The suggestions below for developing a schedule that is more balanced are designed to better accommodate students with attention and activity level differences.

1. Alternate active and less active activities.
2. Use shorter blocks of time for whole class meetings and longer periods for small group and individual work.
3. Provide a balance between teacher-directed and student-initiated activities.
4. Develop a predictable schedule, but be flexible enough to allow students to complete work when they are engaged in a task or excited about a topic, or when a teachable moment occurs. Be sure to give students advance warning on days when the schedule will be changed.
5. Make sure students know what they are supposed to be doing and what is expected of them. (While this may seem like common sense, apparently Rachel, in the above example, does not adhere to it.)
6. Plan carefully for transitions since children with attention and, especially, activity level differences often have the most problems during transition times.

Transitions. Transitions occur when students move from one area of the classroom to another, or from one area of the school building to another. They also take place when children are seated in a classroom and the subject area or activity changes. The type and management of a transition is usually related to the philosophy and curriculum being implemented by the teacher.

In an *open-structured classroom*, students often work in small groups and/or individually on curriculum activities and projects during large blocks of time. Usually, a flexible schedule incorporates short periods of time reserved daily for large group meetings or activities. Students in this type of classroom are aware of their responsibilities and move around to the different learning center areas where they can complete their work. In this model, transitions between centers are usually informal. Transitions to and from large-group activities and between locations in the building, however, will need more direction.

An example of a transition involving students going from a large group to small group or individual activities would be as follows. The large group is meeting with the teacher to discuss new activities in learning centers for this week. As the group finishes their discussion, the teacher says, "Students working in the language arts area now may leave." As those students move to that area, the teacher says, "Students working on science projects may leave." The teacher continues identifying areas until all students have left the large group area and are engaged in an activity. At that time, the teacher moves around the classroom observing carefully and interacting with students when appropriate. Students who have finished working in one area may move to another, as long as there is room for them in the new center or area.

When students must move to another part of the building (i.e., the lunchroom), this transition may be accomplished by having the students stop what they are working on, put things away (if appropriate) and take turns washing their hands. As they finish, they join the teacher at the door. As they arrive, the teacher talks informally with them about activities they have been working on during the morning and/or what new things they have learned so far that day.

In the *semi-structured classroom*, students may have time for individual activities that is separate from the blocks of time to use learning centers. Center management may be more directed, with students staying in one center for an entire block of time. For example, they may play math games in the math center for a set period of time. Others may be in the creative writing center or the map center during the same time. Students may engage in activities in different centers during the same day, or they may rotate to different centers on different days of the week.

An example of a transition in which children move from center activities to a large group meeting follows. The teacher may start singing a song about putting away the things that students are using, or the teacher may put on a record/tape that is always played during this type of transition. As the students hear the song, they know they need to straighten their things and move to the large group area where the teacher is sitting. After a few students have arrived, the teacher begins some finger plays, poem chants, familiar songs or informal discussion until all of the students have joined the group. At that time, the teacher begins reading the story or whatever alternate activity is planned.

If students are seated at tables and need to move to another location in the school building, the following activity can be helpful. The teacher moves around the classroom "collecting" the students. As the teacher passes the first student, he takes her hand and as they pass the next student, the first student takes the next student's hand. So it goes until all students are in the line, each holding hands with the other. With the teacher in the lead, they make their way to the new location.

In a *structured classroom* in which students sit at individual desks, students rarely make physical transitions of moving from one location to another. Stu-

dents with attention and activity problems usually have difficulty in these types of classrooms. Teachers can make it easier for the students by incorporating some transition activities between subjects.

Some examples of these types of transition activities follow. Students can be asked to put away the materials they have been using and get out the new ones. After that, students can stand next to their desks and do some simple calisthenics, or do a "line dance" to music from a record or tape. Another way of handling a transition is to play a short game while students are sitting at their desks.

There are many creative ways of providing meaningful transitions in the classroom. Teachers must use the kind of transitions that best meet the needs of the students and the curriculum. It is important to note that students must *learn* how the transitions work. Students who have had limited experience in more open-structured classrooms may have difficulty in adjusting to that model until they have learned to take some responsibility for their own behavior and learning.

Classroom arrangements. The physical environment of a classroom usually reflects a teacher's philosophy and the curriculum. Teachers working with students in higher grades are likely to have a more structured instructional style than those working at the kindergarten level (Eddowes, 1991). Three types of classrooms have been discussed in this chapter: structured, semi-structured and open.

In a *structured classroom,* much whole-group learning takes place. Students usually sit in separate desks that have storage space for the individual student's books and materials. Generally, the desks are lined up in rows. The perimeter of the classroom is likely to have shelves or cupboards for equipment that students may use at their desks. There are few, if any, learning or interest centers. Occasionally, a classroom library and/or a computer station may be located at the back of the room. Students rarely move around the classroom, and so space (room to move) is not an important consideration.

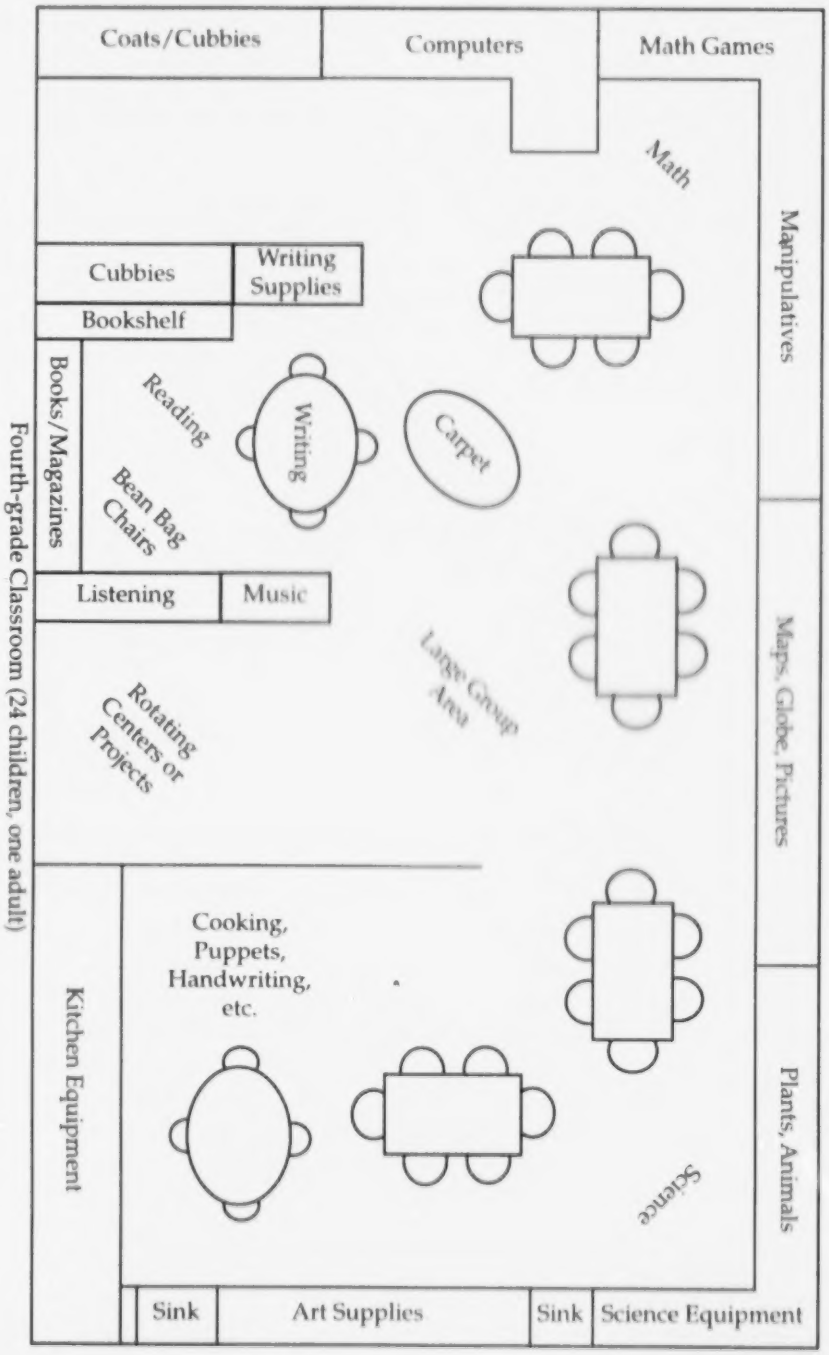
In a *semi-structured classroom,* individual desks may be used, but they can be moved to form small groups when students work together on activities or projects. Although some of the central or "core" curriculum may take place in a whole group format, students engage in center-based activities related to creative experiences and special projects. For example, there may be a creative arts area, a dramatic play area or an area related to a theme or unit. There may also be a classroom library. Learning or interest centers usually are found around the perimeter of the classroom. They may be used when students have finished other school work. (For a diagram of a semi-structured classroom, see Figure 4.1.)

In this type of classroom, students may be able to keep their books and materials in their individual desks. If tables are used instead of desks, cubbies or other storage space will be necessary for belongings. Students will need more space to move around in this type classroom than in a more structured model.

In the classrooms where an *open* philosophy is implemented, space will be used quite differently than in either of the previously mentioned models. Usu-

FIGURE 4.1

DIAGRAM OF A SEMI-STRUCTURED CLASSROOM



ally, learning centers are used in all of the curriculum areas. These centers are an integral part of the classroom. Each developmental or content area represents a part of the total curriculum. A range of information and potential activities can be found in each center. An even wider range is possible for a vertical grouping of students in different grade levels (i.e., 3rd grade through 5th grade in the same classroom).

Some centers will remain the same during the year. Others will change from time to time. In addition, activities will change within each center. For example, the language arts area may have a permanent creative writing center with materials for writing and illustrating stories, books and reports. In this center, the objective would be for students to write original work, with the emphasis being on writing and editing, not handwriting. Although handwriting is important, it is not a truly creative endeavor. Rather, it is an eye-hand/motor skill. Therefore, a handwriting center could be rotated into the language arts area from time to time. In that center, students would not "write" their own stories, but instead would gain handwriting practice by copying poems and narrative passages onto lined paper.

Permanent learning center areas in elementary school classrooms might be as follows: Math, Science, Computer, Language Arts, Social Studies and Creative Art. The Math/Manipulative Center would include activities for measuring, analyzing, problem solving and building. Both biological and physical sciences would be represented in the Science Center. The Language Arts Center would include space for listening, speaking, writing and reading experiences. The Social Studies Center would include a globe and maps, magazines, pictures and reference books. Paints, crayons, colored pencils, chalk, assorted paper, recyclables and related equipment would be found in the Creative Art Center.

Possible rotating centers would be Cooking, Handwriting, Music and Dramatics/Puppets. These centers would have appropriate props when in use. Length of time for a rotation would depend on the center's objectives and its relationship to the entire curriculum.

We would not suggest rotating the sand and water center, especially for primary-age students with attention and activity differences. This center should be available daily. Such tactile experiences can be very soothing for children with attention and activity level differences. While sand and water activities require children to focus their attention (i.e., pouring through a funnel), they can be open-ended and offer opportunities for children to take safe "risks" (Miller, 1994).

A classroom that uses learning centers as an integral part of the curriculum must have ample space. There must be a place for large group meetings, as well as room for tables in each center so that students can experiment. While it is beyond the scope of this book to provide a comprehensive treatment of learning centers, we highly recommend *The Complete Learning Center Book* by Rebecca Isbell (1995). Other information concerning more specific materials for use in learning centers can be found in development/curriculum books (Aldridge, Kirkland &

Kuby, 1996; Bredekamp & Copple, 1997; Eddowes & Ralph, 1998; Seefeldt & Barbour, 1998).

Students with attention and activity problems need opportunities to make choices and learn decision-making skills. They must have an environment in which they can learn self-control and responsibility. The more structured the environment, the more their behavior is controlled by others and the less opportunity they have to learn control of their own. When they are allowed to learn how to use free movement in a classroom, they are more likely to understand the necessity of respecting the space of others, and of making responsible choices.

A Teacher's Ideas About Curriculum and Instruction

A teacher's philosophy about children and structure will naturally color her beliefs and practices concerning curriculum and instruction. These notions are expressed in how much the instructor emphasizes *process*, *content* and *product*. Some teachers focus on one of these elements over the other two, while others try to maintain a balance among them. A teacher's beliefs about these three elements will influence not only what she teaches and how she teaches, but also how she implements the curriculum with regard to children who have tendencies toward inattention or overactivity.

A teacher's philosophy about children and structure will naturally color her beliefs and practices concerning curriculum and instruction.

A Teacher's Concern for Process. Classroom teachers who tend to focus on process are often more constructivist in their orientation (Kamii, 1985). They are more concerned with how a child thinks, gets an answer or creates something than with a prescribed curriculum or what the child's work or representations look like. This is not to say they are not concerned with content or product. They are simply *more* interested in the process of learning.

Often, language is used to probe process. A teacher may ask, "How did you come up with that answer?" or "Tell me how you went about drawing that flower." Students are asked to reflect over their own work and explain how they went about the task or came up with the answer. Children who are inattentive during traditional seatwork may do better with process activities since they are often asked to explain their work to the teacher. This encourages students to develop their metacognitive strategies.

A Teacher's Interests and Beliefs About Content. Some teachers are more interested in content and less in how children think or get answers as they are in

covering all of the material in the textbook or in the curriculum guide. For these teachers, "finishing the textbook" is of great importance. The following example describes a 5th-grade teacher whose primary interest is in content.

Jackie is a 5th-grade teacher who "covers a lot of material" in her classroom. She follows the curriculum guide, the teacher's guide for the textbooks, and also exposes her children to Hirsch's cultural curriculum for 5th grade (see Hirsch, 1988). She is determined to finish the curriculum by the end of the school year.

The curriculum coordinator for her school system is more process-oriented than Jackie and has taught demonstration lessons in Jackie's classroom, using more process-oriented methods. When the students were studying a unit on the northeastern United States, for example, the coordinator demonstrated some strategies for Jackie, starting with an activity known as K-W-L, which stands for "What we know; what we want to know; what we learned" (Ogle, 1986). The coordinator applied K-W-L this way: "What we know about the Northeast; what we want to know about the Northeast; what we learned." Students brainstormed what they knew and then used what they said they knew to verify the information in the text and in other resources. One of the students originally had said, "Chicago is in the Northeast." While reading and researching the topic, the student and class realized that Chicago is not in the Northeast. The students modified what they thought they knew and made a list of their correct and incorrect responses.

After completing this short lesson with Jackie's 5th-graders, the coordinator asked her, "Well, Jackie, what do you think?" Jackie's response was, "Well, that was nice, but we don't have time to do that. We only have two days to spend on the Northeast before we move to another topic. Otherwise, we will not finish the textbook this year." Clearly, Jackie's focus was on covering the material, while her supervisor's goal was more process-oriented.

Teachers like Jackie, who are overly concerned with content, do little to help children with attention and activity level differences. It is difficult to engage a student's attention when big topics are covered in two days.

A Teacher's Emphasis on Product. What end result teachers expect students to produce also varies greatly. Traditional teachers, for example, focus on worksheets and getting the right answer, while constructivist teachers are more concerned with children's representations and extending and refining them. Such differences can have a tremendous effect on how inattentive or overactive children respond. Traditional teachers often have difficulty in helping children concentrate because the product involves worksheets or workbooks with the correct answer. The children receive a great deal of fragmented information without learning about how the pieces are related. This type of product does nothing to sustain and extend attention. Children become lost in a sea of paper-and-pencil activities.

Constructivist teachers, however, help children learn to develop their attention by helping them rework their self-selected forms of representation. If a class is studying the northeastern United States, for example, a constructivist teacher will allow students to use many forms to show what they are learning about the

Northeast. Then, these representations can be refined or extended as the topic progresses. If a child chooses to do a web, then the teacher can comment, "Look at all you are learning about the Northeast. What do you think you've left out? What about . . . ?" Children then continue to build on their prior knowledge and revise their work forms.

Conclusions

Some research exists about teachers' philosophy on classroom structure. Few studies, however, focus on teachers' beliefs and practices and their perceptions concerning children with attention and activity level differences. Eddowes, Aldridge and Culpepper (1994) studied kindergarten and primary level teachers' classroom practices and their identification of children with attention problems. "A difference was found between teachers of structured and unstructured orientations in the number of children they reported to be hyperactive. The former group perceived significantly more children in their classrooms to be hyperactive" (Eddowes, Aldridge & Culpepper, 1994, p. 787). Teachers with a more structured orientation rated more younger students as distractible and hyperactive. Clearly, more research is needed on teachers' beliefs, their ideas about classroom structure, and the number of children they rate as inattentive or overactive.

A teacher's philosophy strongly influences her classroom structure and expectations. This, in turn, affects children who have attention and activity level differences. Teacher beliefs manifest themselves in ideas about children, notions about classroom structure, and curriculum and instruction practices. It is important to note that all of these factors are inextricably interrelated. A teacher's beliefs about children will dictate her designs for classroom structure, as well as what she teaches and how she teaches. We have seen in this chapter how extremes are not helpful to children in general, and often are counterproductive to overactive and inattentive children, in particular.

Suggestions for Further Reading

Bredekamp, S., & Copple, C. (Eds.). (1997). *Developmentally appropriate practice in early childhood programs* (Rev. ed.). Washington, DC: National Association for the Education of Young Children.

Eddowes, E. A., & Ralph, K. S. (1998). *Interactions for development and learning: Birth through eight years*. Upper Saddle River, NJ: Merrill/Prentice-Hall.

Jalongo, M. R. (1996). Editorial: On behalf of children—Why cute is still a four-letter word. *Early Childhood Education Journal, 24*(2), 67-70.

Manning, M. L. (1993). *Developmentally appropriate middle level schools*. Olney, MD: Association for Childhood Education International.

Chapter 5

Theoretical Shifts in Our Understanding of Children

People living in the 20th century have experienced more changes than during any other period in human history. This holds true for theoretical shifts in our understanding of children. This chapter will explore the rapidly changing perspectives held about children, in general, and about those with attention and activity level differences, in particular. We will explore changing world views, theories that inform our educational practices, modern and postmodern conceptions of children, changing curricular practices, and the implications for children with attention and activity level differences.

Changing World Views

We cannot fully address attention and activity levels without exploring major shifts in world views. World views (sometimes called paradigms or metatheories) are the big picture. Paradigms are very general models of humankind. While they are neither true nor false, they are used as reference points for interpreting the world around us (Vander Zanden, 1989). Such world views were first discussed in detail by Pepper (1942), and Kuhn (1970) provided an early explanation of paradigms and how they are adopted.

Three world views have significantly influenced practices in education and child development: organismic, mechanistic and contextualist world views (Miller, 1993). Table 5.1 provides an overview and comparison of these three world views and their influence on education.

As we can see, there are some irreconcilable differences among the three world views, including the nature and solutions related to attention and activity. Over the past two decades, both the organismic and mechanistic paradigms have been criticized (Bronfenbrenner, 1989; Ford & Lerner, 1992; Lerner, 1986), specifically with regard to AD(H)D. Pellegrini and Horvat (1995) "argue against the simplistic dichotomizing of biology and experience" (p. 14) and favor a more developmental contextual view. Both organismic and mechanistic paradigms are unidirectional. By organismic paradigms AD(H)D is described as a problem within the child, while in mechanistic paradigms the environment is considered a major unidirectional contributor. "In contrast, a transactional model posits that children and their environments influence each other (e.g., special children elicit different reactions from different teachers; the reactions/expectations of these different teachers feed back to affect individual children's behavior)" (Pellegrini & Horvat, 1995, p. 15). Responsibility for any differences in attention or activity levels would be a result of the transaction between the two systems.

Table 5.1

A Comparison of Organicism, Mechanism, and Developmental Contextualism

	Organismic World View	**Mechanistic World View**	**Developmental Contextual World View**
The nature of children	more active (passive environment)	more passive (active environment)	interactive
Driving forces of development	biological; predisposition; genetics; factors indigenous to the child	environmental; adults; factors outside the child	a bidirectional interaction between the child and the environment
Nature of development	qualitative changes; emphasizes stages or step-like development; big changes	quantitative changes; emphasizes linear development; small changes	both qualitative and quantitative changes; emphasizes both large and small changes
Humans are like... (Metaphors used)	growing plants	machines	multifaceted individual and social beings
How children learn	from the inside-in	from the outside-in	in many ways based on numerous factors both within the child and between the child and context
Where the difficulty is when the child is not learning or developing as expected	within the child	in the child's environment	interactions between the child and the multiple contexts that influence the child

	Organismic World View	Mechanistic World View	Developmental Contextual World View
Examples of theorists	Gesell, Piaget, Freud	Watson, Skinner, Thorndike, Bijou	Vygotsky, Bronfenbrenner, Lerner
Primary explanation for differences in attention and activity levels	biological or genetic origin; organic damage; inside the child	unstructured environment; inappropriate reinforcement strategies	multiple, interacting origins—including the interaction between nature and nurture
Solution to attention and/or activity level differences	medication (e.g., Ritalin); maturation	structured environment; behavior modification	multiple interventions tailored specifically for the unique nature of the child and the multiple contexts influencing the child

Changing Theories

Theories of development are much more specific than paradigms or world views (Miller, 1993). A theory of development deals with change over time and is usually concerned with three things. First, it should describe changes over time within an area or several areas of development. Second, it should describe changes among areas of development. Finally, it should explain those changes.

No one theory has proven adequate to describe and explain AD(H)D. Numerous theories of development have influenced educational practices during the 20th century (Aldridge, Kuby & Strevy, 1992), and currently a shift is affecting theories of child development in general and, more specifically, theories incorporating explanations of AD(H)D. Some of the historical and current theories that have informed education are described briefly below. In these descriptions we will point out the limitations of the theories in explaining AD(H)D.

We wish to point out that by noting the limitations or misuses of some of these theories, we are not necessarily criticizing the theories as much as pointing out that no one theory has been found to explain AD(H)D. Also, the major theorists who contributed to these explanations had to limit their research priorities. Beilin

(1989), for example, reports that Piaget was not much interested in social knowledge, contexts or individual differences. We do not fault Piaget for not studying these factors; we simply point out that the limited focus prevents constructivism from fully explaining AD(H)D.

Some of the historical and current theories that have influenced education include Gesell's (1925) maturational theory, Skinner's (1974) behaviorist approach, Freud's (1935) psychoanalytic theory, Piaget's (1952) constructivist theory, Vygotsky's (1978) socio-historical approach, Bronfenbrenner's (1989) ecological systems theory, and Gardner's (1983) multiple intelligences theory. More recently, critical theory (see Kessler & Swadener, 1992) has influenced education and child development practices, even though critical theory is not generally considered to be a theory of development.

Maturational Theory. The maturational theory of Arnold Gesell (1925) continues to affect what goes on in schools, particularly in early childhood classrooms in some parts of the United States. Gesell based his theory on three major assumptions: 1) development has a biological basis, 2) good and bad years alternate, and 3) body types (endomorph, ectomorph, mesomorph) are correlated with personality development (Thomas, 1992). Maturational theory strongly influenced the teaching of reading in the mid-1900s (see Morphett & Washburne, 1931). Children were not thought to be "ripe" for reading until they had a mental age of 6 1/2. Consequently, readiness activities were developed for children who were not yet ready to read. Some of this nonsense still occurs in preschool, kindergarten and even primary level classrooms. Today, maturational theory is partially responsible for the existence of pre-kindergartens and pre-1st grades aimed at children who supposedly need the "gift of time," because of immaturity or a "late birthday." These classrooms tend to have a ratio of boys to girls of anywhere from 7:1 to 10:1, and many of these boys will receive a label of AD(H)D (see Graue, 1992).

Practitioners subscribing to maturational theory consider any difficulties a child experiences as being found within the child. This oversimplistic explanation for anything from reading problems to AD(H)D is extremely limiting to children and to those who work with them. If a problem lies within a child, then what value does a supportive (or, for that matter, a non-supportive) environment have?

Behaviorist Approach. The behavioral theories of B. F. Skinner (1974) and Bijou (1989) also continue to influence what goes on in schools, especially for some special education programs. The mechanistic theory of behaviorism emphasizes the role of the environment on an individual's development. Preparing the environment for appropriate reinforcement is a major goal.

Two examples of Skinner's contribution to education include behavior modification and programmed learning. Both of these rely heavily on immediate reinforcement, in which a child has to exhibit the "right" behavior or produce the "correct" answer in order to be positively reinforced.

Teachers using behavioral theory will consider any difficulties a child has as

being found within the environment. As with Gesell's overemphasis on nature, Skinner's overemphasis on nurture limits our understanding of children and their differences. Applications of this theory have resulted in an overemphasis on isolated skills and drill, as well as a heavy reliance on teacher-directed and -rewarded activities. Consequently, teachers often ignore children's curiosity and prior knowledge.

Psychoanalytic Theory. Freud's psychoanalytic theory served as the theoretical basis for analysis of behavior disorders during the 1920s through the 1940s. "Behavioral problems displayed by children were viewed as symbolic manifestations of unresolved conflict, often emanating from early caregiver-child interactions" (Hinshaw, 1994, p. 10). Problems with attention and activity levels were attributed to unconscious processes. Play therapy was the recommended form of intervention, with accompanying therapy for the child's parents. Psychodynamic models continue to have an effect on education and intervention for children with special needs.

One of the biggest problems with psychoanalytic theory is the inherent allocation of blame on parent-child interactions—more specifically, on the mother's actions. Fortunately, theoretical shifts have moved from a blame the parent model to more bidirectional, transactional and interactional models of childhood differences.

Constructivist Theory. Although there are several "brands" of constructivism, Piaget's theory (1952) continues to affect what goes on in many classrooms. This theory relies heavily on logico-mathematical knowledge and the universals of development to the neglect of other forms of knowledge and the importance of context in a child's development. Even though knowledge is constructed from the "inside-out" through interaction with the environment, the focus is more on the individual's coordination of relationships rather than on socially constructed knowledge.

Autonomy is the aim of education in constructivism (see Kamii, 1985). Constructivist theory, however, has not adequately addressed either individual differences nor cultural and contextual contributions to development (Delpit, 1988; Kessler & Swadener, 1992; Mallory & New, 1994). Thus, the needs of children who are different often are not met in constructivist classrooms.

The Socio-Historical Approach. The more cultural approach of Vygotsky (1978) affected learning and development through an emphasis on socio-historical context, language and literacy learning, and the scaffolding of an adult or more able peer within a child's zone of proximal development. While Vygotsky emphasized the salience of culture and language, the zone of proximal development concept probably has had the biggest effect on education.

The zone of proximal development is the instructional level of a child, the area in which the child can most benefit from instruction with the help of an adult or more knowledgeable child. According to Vygotsky (1978), that which a child can do today with help from a teacher (or more able peer), the child can do tomorrow

by herself. Trying to figure out a child's zone of proximal development, however, is somewhat nebulous and difficult. Vygotsky did not expound upon the nature of a child's zone of proximal development, how to determine it, or how to work with a child within that zone. For children exhibiting attention and activity level difficulties, the zone of proximal development may be even more difficult to determine and utilize.

Ecological Systems Theory. Another theory used to guide education in the late 20th century is Bronfenbrenner's (1989) ecological systems theory. Bronfenbrenner proposed that a child is influenced by and influences the multiple systems in which he or she resides (either directly or peripherally). These systems include the microsystem, the mesosystem, the exosystem and the macrosystem. Applications of this contextual theory focus on the seemingly endless variables within the child, and between the child and the numerous contexts affecting her. While few people would quarrel with the importance of these influences, trying to account for all of the endless interactions and variables affecting a child is exhausting and impractical. How would we ever have enough information about the child's temperament, activity levels and attentional states as they relate to the microsystem, mesosystem, exosystem and macrosystem?

If we can determine children's individual intelligence(s), we can better help them sustain and extend their attention in areas in which they excel.

Multiple Intelligences Theory. The multiple intelligences theory of Howard Gardner (1983) is a more recent influence on education. Traditional views of intelligence favored particular cognitive processes, including certain types of problem solving (mathematical-logical intelligence) and language abilities (linguistic intelligence). According to Gardner, however, these are just two types of intelligence. Five other intelligences—musical, visual spatial, bodily kinesthetic, interpersonal and intrapersonal—must be considered. Gardner since has added an eighth intelligence he calls the naturalist. A naturalist is someone who has the ability to recognize important distinctions in the natural world (Checkley, 1997).

Multiple intelligences theory shows promise for developing appropriate practices to use with children who have attention and activity level differences. If we can determine children's individual intelligence(s), we can better help them sustain and extend their attention in areas in which they excel. We also can use children's types of intelligence(s) to assist in planning and teaching in areas in which they are not as gifted. Schools and teachers, however, are not usually equipped equally to deal with multiple intelligences. For example, children from

a lower socioeconomic area who have attention and activity level differences may not have had many opportunities to explore music or visual spatial intelligence, even if these are the areas in which they might excel. More effort needs to be made to fully understand multiple intelligences and children's attention and activity levels.

Critical Theory. Although critical theory is more a social or political theory than a developmental one, its influence on education has gained momentum over the past two decades. There are, in fact, many critical theories that all have several things in common. Critical theories "examine the way in which philosophies and practices have determined what is taught in school and have served the 'state' to reproduce class lines and economic relationships" (Bloch, 1992, p. 6). Critical theories also "examine interrelationships among cultural, ideological, and economic relationships and race, class, and gender-related oppression" (Bloch, 1992, p. 6).

Although critical theorists in general have not taken on AD(H)D or attention and activity level differences, they have nonetheless helped educators shift and expand theoretical orientations to this timely topic. Critical theorists note, for example, that significantly more boys than girls are identified as AD(H)D. Rather than look for reasons indigenous to children, critical theorists question the social, political, economic and educational reasons that more boys are labeled AD(H)D.

Critical theory also holds great promise for a more comprehensive understanding of children with attention and activity level exceptionalities. Critical theorists tell us that none of our previous explanations concerning AD(H)D are strictly objective and neutral. All explanations have a social, political and economic basis. There is, if you like, a hidden agenda, even if it is not acknowledged. What, then, are the social and political foundations of a phenomenon such as AD(H)D? What power relationships exist among those who are in charge of schools and those being labeled as AD(H)D?

Critical scientists tell us that society values some forms of activity and knowledge more than others. Those who do not conform to these forms are marginalized. Children identified with attention and activity differences are those who do not conform to the attention and activity levels that are valued by society. Educators are just beginning to look at this theory as one possible explanation for more males being identified with AD(H)D.

Modern and Postmodern Conceptions of Children

Perhaps one of the biggest and most recent shifts in our understanding of children took place with the advent of postmodernity. Elkind (1995) defines postmodernism as

> not a revolt against the beliefs of modernity. Rather, it is perhaps best regarded as a set of attitudes and efforts designed to modify and correct modern ideas that have been perverted and modern beliefs that have proved to be too broad or too narrow. (p. 9)

Table 5.2

A Comparison Between Modern and Postmodern Beliefs and Practices

Beliefs and Practices	Modernity	Postmodernity
1. General beliefs and practices	**Progress and Reason**—Humans are gradually improving	**Ascendancy of language over reason**—Humans are embedded within social, cultural and historical contexts
	Universals—Creative and rational thought can transcend social and historical boundaries in the arts and sciences	**Particulars**—More concerned with specific cultural issues than with grand universals
	Regularity—Values a search for natural laws that govern the physical and social worlds	**Irregularity**—Values differences and irregularities in language, culture, science, the arts, industry, family & school
2. General beliefs about the family	**Romantic love**—There is only one person in the world who is your other half	**Consensual love**—One person cannot fulfill all your needs; divorce is a real possibility
	Maternal love—Mothers instinctively love and care for their children	**Shared parenting**—Mothers, fathers, extended family and other caregivers share responsibility for children
	Togetherness—Family is placed before self (family eats together at mealtime)	**Autonomy**—Self is placed before family (family does not eat together often, each person is "doing own thing," i.e., soccer practice, etc.)
3. General beliefs about school and children	Education for progress, universality and regularity	Education for diversity, pluralism and autonomy
	Personal adjustment	Self-esteem
	Childhood innocence and adolescent maturity	The competent child

[Adapted from Elkind, D. (1995). School and family in the postmodern world. *Phi Delta Kappan*, September 1995, 8-14.]

Table 5.2 shows a comparison of modern beliefs and practices versus postmodern beliefs and practices.

Both modernity and postmodernity currently exist simultaneously. Some families' beliefs and practices are more representative of the modern world. Others clearly live with postmodern values. It is not the purpose of this book to make a value judgment as to whether modernity or postmodernity is best. Clearly, both have their strengths and weaknesses. Because we currently live in both a modern and postmodern world, however, conflicting conceptions of children and their individual differences are bound to occur.

One example of this conflict can be seen in a conversation between a mother and daughter talking about the daughter's son, who was recently diagnosed with AD(H)D. The grandmother said, "No wonder Mark has AD(H)D. You and his father work all the time. You never eat together as a family. Everyone is always going their own way. Since you hurry all the time and go here and there, I'm not surprised at all."

The daughter replied, "Mother, you don't understand. I work and go to school. Mark takes tennis and piano lessons. Although we are all busy, we are happy. It doesn't matter that we eat together. I take Mark to tennis and piano and his father or a sitter are with him when I have to work or go to class."

The mother and daughter have different ideas about what families should be like. The mother appears to have more modern values, while her daughter seems to subscribe to her own postmodern reality. As for Mark, while we do not know all the contributing factors to his diagnosed AD(H)D, we do know that he is being raised in a basically postmodern family. Anyone working with Mark and his family to cope with this AD(H)D label will need to take this into consideration.

Changing Curricular Practices

If we combine Heald-Taylor's (1996) description of curriculum models with Jungck and Marshall's (1992) we can formulate four basic models of teaching that are in practice today: 1) curriculum as transmission, 2) curriculum as transaction, 3) curriculum as inquiry and 4) curriculum as transformation. While curricular practices are shifting from transmission toward transformation, all four models are very much in practice today. In fact, many would argue that curriculum as transmission is still the prevailing practice.

In teaching as transmission, the curriculum is clearly prescribed by "experts" and measured as a commodity or product. This is traditional teaching. The teacher's role is as a technician, who utilizes the prescribed curriculum (such as basal readers or curriculum guides) and makes few real decisions. She simply follows the preformed lesson plans. Students work individually to complete the same tasks. Usually, this task involves getting the correct answer. Decisions are made by outside experts and all meaning resides in either the materials or the experts (Heald-Taylor, 1996).

Children with attention and activity level differences undoubtedly will have

difficulties under the traditional teaching as transmission model. This model incorporates a tremendous amount of boring seat work, and there is little opportunity for movement or detailed exploration of topics that interest the children. Ironically, many politicians and school superintendents recommend *more* of this structure for children who are having attention or activity level differences. Students with AD(H)D or other attention differences are thought to need more structure. In many cases, they *do* need structure, just not more of the same!

Curriculum as transaction is different from teaching as transmission. In transaction, "knowledge is seen as constructed and reconstructed by those participating in the teaching-learning act" (Jungck & Marshall, 1992, p. 94). While teachers still use curriculum guides, they make decisions about selections and activities for students. Although students usually study the prescribed curriculum, they work in groups. Activities are more open-ended and promote higher level thinking. Students can choose among various ways to represent what they have learned. Decisions still are made primarily by the teacher, with student input, while meaning is guided by the teacher, but constructed by the students (Heald-Taylor, 1996).

Students with attention and activity level differences need support in such classrooms. Since group work is more common, these students need support in developing the skills necessary for group interaction. When children have options for showing what they have learned, they may need assistance in planning and carrying out their representations. There is more opportunity for physical movement and talking (group interaction) in this form of curriculum. Many traditional educators believe that such an environment is too much for children with AD(H)D to handle. While this is not necessarily the case, children do have to *learn* how to sustain and extend their attention, how to resist distractions and how to complete tasks.

A third model is curriculum as inquiry. Just as with curriculum as transaction, inquiry classrooms encourage a lot of student interaction in groups. The same group skills a teacher would encourage and develop in transaction classrooms will need to be taught in inquiry classes.

Curriculum as inquiry has been used more and more over the past 20 years—particularly in whole language, developmentally appropriate, early childhood classrooms. Teachers in this type of curriculum create an inquiring environment that encourages children to explore and learn. The students play an active role in determining what the class, in general, and what they, in particular, will study. If the teacher has exposed the children to several authors of good literature, for example, the children may be the ones to decide which one will be the subject of an author study. If a tornado recently hit the community, the students may express an interest in learning more about tornadoes, and so it becomes the focus of the theme or unit of study. Many such decisions are made by the students, who are encouraged to construct their own meaning. Meaning, in these classrooms, does not rest with some outside expert.

General management of an inquiry classroom takes a tremendously resource-

ful and skilled teacher. Any instructor who does not have such abilities will surely see havoc in students who are inattentive or overactive. *In inquiry classrooms, the curriculum is less crucial than the teacher's ability to be a good manager.* When instructors have the skill and resources to effectively run an inquiry class, children who would otherwise be inattentive or overactive may actually thrive in this type of classroom.

A fourth model, curriculum as transformation, appears at first glance to be identical to the curriculum as inquiry model. There is, however, one important difference. In transformation classrooms, the curriculum is designed to study how people or other living creatures make a difference in the world. In an inquiry classroom, if students express an interest in studying insects, a unit on insects is developed. In transformation classrooms, however, the study of insects would go a step further. Students' interest in insects would lead to a study of how insects make a difference in the world. What insects are helpful? How can humans "work with insects" to maintain an appropriate ecological balance? In these classrooms, curriculum takes on a whole new meaning. We study things so that we can make a difference on the planet (Jungck & Marshall, 1992).

In terms of management, the same things can be said about transformation classrooms as can be said for inquiry programs. A skillful and resourceful teacher will make all the difference in the world. Again, students who are inattentive or overactive will need the right amounts and kinds of personal support. Without it, they may get lost in the shuffle.

Conclusions

In this chapter, we have seen the shifts that have occurred and are occurring in our current understanding of children. We have moved through organismic and mechanistic paradigms to a new era of developmental contextualism, in which the child and context are seen as much more complex and interactive than originally conceived. Theories that inform our educational practices also are changing. Those that relied too heavily on the child's nature (Gesell, 1925) or on the environment (Skinner, 1974) are giving way to more interactive theories, such as Bronfenbrenner's ecological systems theory (1989) and Vygotsky's socio-historical approach (1978). Although not a theory of development, critical pedagogy has helped us consider the social, political and economic ways in which we view children, including those with attention and activity level differences.

In many ways, we live in both a modern and postmodern world. We have one foot in modernity while the other foot is in postmodernity. This is sometimes a very painful and uncertain place to be as many people are not completely sure of their own beliefs about children, families, schools and society. Any intervention plan for children who might be seen as inattentive or overactive should take into consideration the changes we are experiencing in the modern and postmodern worlds.

Curricular practices are changing, as well. While many teachers still subscribe

to teaching as transmission, others have moved on to teaching as transaction, inquiry or transformation. There has been extremely limited quality research on how children with AD(H)D or other similar differences adjust to one curriculum practice over another. Again, any intervention for children with exceptionalities will need to take into account the type of curriculum in which these students will participate. It is no wonder that there are no quick fixes or easy answers to this problem. In the next section, we will describe practical suggestions for dealing with attention and activity level differences.

Suggestions for Further Reading

Bloch, M. N., Tabachnick, B. R., & Espinosa-Dulanto, M. (1994). Teacher perspectives on the strengths and achievements of young children: Relationship to ethnicity, language, gender, and class. In B. L. Mallory & R. S. New (Eds.), *Diversity and developmentally appropriate practice: Challenges for early childhood education* (pp. 223-249). New York: Teachers College.

Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed.), *Annals of child development, Vol. 6* (pp. 187-251). Greenwich, CT: JAI Press.

Elkind, D. (1995). School and family in the postmodern world. *Phi Delta Kappan, 76*, 8-14.

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Section Three

Practical Suggestions for Dealing with Attention and Activity Levels

Chapter 6

Developmentally Appropriate Practice for Children with Attention and Activity Level Differences

Professional organizations, such as the National Association for the Education of Young Children (NAEYC), the Association for Childhood Education International (ACEI) and the Division for Early Childhood (DEC) of the Council for Exceptional Children, have been engaged in healthy dialogues about what constitutes developmentally appropriate practice in early childhood education, elementary and middle school education, and early intervention. Developmentally appropriate practice originally was conceived as having two parts—age appropriateness and individual appropriateness. Over the past decade, however, teacher educators and practitioners have been working to expand their thinking about what entails developmentally appropriate practice.

Publications about diversity that attempt to expand original versions of developmentally appropriate practice have engendered especially beneficial extensions (Charlesworth, in press; Kessler & Swadener, 1992; Mallory & New, 1994). The revised guidelines for developmentally appropriate practice published by NAEYC in 1997 provided for a more inclusive definition of developmentally appropriate practice (Bredekamp & Copple, 1997). The most current definition of developmentally appropriate practice is:

> . . . the outcome of a process of teacher decision-making that draws on three critical, interrelated bodies of knowledge: 1) what teachers know about how children develop and learn; 2) what teachers know about individual children in their group; and 3) knowledge of the social and cultural context in which those children live and learn. (Bredekamp & Copple, 1997, p. vii)

Bredekamp and Copple (1997) go on to clarify this more expanded definition as follows:

> [Developmentally appropriate practice] requires that teachers integrate the many dimensions of their knowledge base. They must know about child development and the implications of this knowledge for how to teach, the content of the curriculum—what to teach and when—how to assess what children have learned, and how to adapt curriculum and instruction to children's individual strengths, needs and interests. Further, they must know the particular children they teach and their families and be knowledgeable as well about the social and cultural context. (p. 16)

This chapter will describe what constitutes developmentally appropriate prac-

tice for children and youth with attention and activity level differences. The authors will make general recommendations for applying developmentally appropriate practice with these individuals.

What Is Developmentally Appropriate Practice for Children with Attention and Activity Level Differences?

Children with attention and activity level differences present unique challenges for implementing developmentally appropriate practice for a number of reasons. Educators must consider: 1) the developmental levels of such children, 2) individual variations among children, 3) contextual and cultural influences, 4) the "universals" of attention and activity development, and 5) teleological considerations.

> The development of attention is complex . . . attention has to be taught, including how to extend attention.

Developmental Levels of Children with Attention and Activity Level Differences. The developmental level of a child with exceptionally limited concentration and/or high impulsivity characteristics is an important consideration in determining what would be appropriate practice. We know, for example, that for large group activities (such as circle time or class planning time) a "double the age rule" has been recommended (see Guddemi, 1988). This means that if a child is 5 years old, she should not be expected to attend in a large group for much longer than 10 minutes without creative and positive attempts at helping her, over time, extend her attention level. This rule, however, should not hold true for small group or individual activities. If the child is absorbed in a project, such as building blocks or creative play, she should be allowed to sustain her attention for large blocks of time, thus facilitating her future development and ability to extend her attention (Eddowes, Aldridge & Culpepper, 1994; Eddowes & Ralph, 1998).

The development of attention is complex due to a number of variables, two of which are the maturational level of the child and the fact that attention has to be taught, including how to *extend* attention. Few would deny that normal 3-year-olds are highly active, partly due to their maturational level. To compound this problem, a number of educationally inappropriate practices, such as long periods of sitting and listening, skill-and-drill, homogeneous grouping, emphasis on standardized testing, fragmentation and psuedolearning, disrupt the development of attention in children, even those within the normal ranges of attention and activity levels (Aldridge, 1993; Manning & Manning, 1981). Ironically, what is often recommended for children with exceptional attention and activity levels is *more* of this type of structure. In order for developmentally appropriate practice to occur (especially with regard to attention and activity), educators must

consider the child's age and maturational level, as well as understand that attention in many ways is a learned behavior.

Individual Variations Among Children. Individual differences are also multidimensional, salient considerations. Individual differences occur due to temperament, typology, type of intelligence, learning style, personal initiatives and gender, just to mention a few.

Temperament may be defined as the inborn part of the personality, which is strongly influenced by the child's interactions with the environment over time (Bronfenbrenner, 1989). Thomas and Chess (1977) pioneered conceptualization of temperament, concluding that a child is born with at least nine different temperament traits. They further classified infants into four basic categories: easy, difficult, slow-to-warm-up and miscellaneous. While their research was highly informative, it sometimes has been misunderstood. Chess and Thomas did not view their research from a deficit perspective. Rather, their work was meant to categorize temperament to allow for better understanding of personality-related predispositions. Their choice of names for their categories, however, has drawn some criticism. Some educators and psychologists consider their terms to be deficit labels. Who would want to be described as "difficult" or "slow-to-warm-up," or even "easy," for that matter?

While children are, indeed, born with different temperaments, particularly with regard to attention and activity levels, these need not be seen as deficits. As we reported in the prologue, many adults have said, "If only I could bottle the infant's or toddler's energy level and use it, I could get more done." In order for developmentally appropriate practice (with regard to temperament) to occur, a child's temperament should not be described as difficult, slow-to-warm-up or easy. A child's high activity level can easily be considered a strength, rather than a weakness.

Individual differences in *typology* also can be viewed positively (Aldridge, 1991). According to Jung (1954), some children are introverts and some are extroverts. Introversion refers to a flow of energy moving inward. Some introverted children may appear inattentive because they are paying more attention to what is going on inside them than to what is happening outside. Extroversion refers to a flow of energy moving outward. Many extroverted children may be mistakenly identified as overactive because they are interested in everything that is happening around them much of the time.

Also, some children have a strong need for structure, and others do not. This natural inclination or preference for a particular type of structure is not necessarily tied in any way to attention or activity levels. This is an important distinction, of course, because many adults believe that all children who are inattentive and distractible or impulsive and hyperactive, or any combination of these, need more structure. The amount and type of structure a child needs are more related to personality factors and typology than to attention or activity levels. Thus, for educational experiences to be developmentally appropriate for children with at-

tention and activity level differences, a consideration of more comprehensive factors such as typology and personality traits must be considered.

A child's *type of intelligence* is another salient issue in applying developmentally appropriate practice. Howard Gardner (1983; 1993) has said that we have been asking the wrong question about children for many years; to wit, we have been asking, "How smart is this child?" when we should have been asking, "How is this child smart?" Children have different types of intelligence, which include linguistic, mathematical-logical, musical, bodily kinesthetic, visual-spatial, interpersonal and intrapersonal abilities. So how does this relate to a child's attention and activity level and to developmentally appropriate practice? Specifically, a child may have problems concentrating, or may fidget when she is engaged in activities that are not of interest or are not related to her "type(s)" of intelligence. Does this mean that we should help children develop only their stronger areas? The answer, of course, is no. A child's strength in a type of intelligence, however, may be used to help him work with areas that are not as strong. In order to provide appropriate experiences and help children attend and adjust their activity levels, it is necessary to consider children's intelligence types.

Adjusting instruction to accommodate a child's *learning style* is also helpful in providing a positive environment. While the concept of learning styles was somewhat overused in the 1980s, the idea that some children are more auditory, some more visual and others more kinesthetic in their learning preferences can be helpful. To use a specific example, 9-year-old Nathan is taking piano lessons and has developed his auditory ability more effectively than he has his visual channel. His piano teacher is a strong believer in "reading the musical notes by sight" and not relying on sound in any form or fashion. If Nathan has heard a particular piece before, however, he quickly relies on his "ear" to learn the song. His music teacher frowns on this practice, scolds Nathan when she notices he is using his ear, and sometimes even slaps his hands and says, "You are playing by ear again."

What a tragedy. His piano teacher could help *extend* Nathan's attention to the written notes through the use of his ability and preference for playing by ear. She could say, "Nathan, you know you play by ear better than you do by sight. Now I'm going to play this piece for you if you will promise to look at the notes very carefully while you are listening. This will help you learn the music by notes, as well as by ear."

While the above example refers to perceptual preferences, learning styles can be configured in at least four other ways: environmental preferences, sociological preferences, time-of-day preferences and mobility needs (Dunn, Beaudry & Klavas, 1989). Environmental preferences have to do with quiet versus sound, bright or soft lighting, warm or cool temperatures, and formal versus informal seating arrangements (Dunn, 1987). Children may exhibit inattention or overactivity because of a mismatch between their needs and the environment. "Teachers often view negatively the children who squirm in their seats, tap their pencils, complain about the temperature, or become hyperactive (in some cases

because of too much illumination)" (Dunn, Beaudry & Klavas, 1989, p. 52).

Children also have sociological preferences (i.e., preferences to work either with others or alone). Research has shown that children concentrate and actually have higher test scores when learning conditions are matched with their sociological preferences (Giannitti, 1988; Miles, 1987). Other studies report that, generally speaking, "students in grades 3-8 will learn better in small, well-organized groups than either alone or with the teacher. After grade 8, however, more will learn better alone" (Dunn, Beaudry & Klavas, 1989, p. 53).

Time-of-day preferences also make a difference in children's concentration and activity. Everyone knows morning people, afternoon folks and night owls. These people work best at particular times of day. Unfortunately, this common knowledge rarely has been applied to children in school. Most school systems are set up to teach the "most important" subjects (such as reading, language arts and math) in the early morning, when students are "fresh" and will presumably learn the most. Children, like adults, have time-of-day preferences when they function better academically. Trying to adjust this need for children with AD(H)D can be problematic. In one middle school in the Southeastern United States, for example, the classes rotate over a six-week period. If math is first period today, it will be second period tomorrow, and third period the next day and so on. While a middle school student may learn better in the afternoon, changing the schedule in this way often can be confusing and less helpful than leaving the schedule alone. Therefore, when dealing with learning styles, particularly time-of-day preferences, making adjustments may cause problems or confusion elsewhere for a child with AD(H)D.

One of the biggest learning style issues for children with high activity levels and low attention is their mobility needs. Research substantiates that children's mobility needs have a direct correlation to whether or not they are viewed as overactive, impulsive and inattentive (see Fadley & Hosler, 1979; Fitt, 1975; Restak, 1979). Psychologists report that most children sent to them for "hyperactivity" are *not* clinically hyperactive. They are simply regular kids in need of movement (Dunn, Beaudry & Klavas, 1989). Even more interesting is the fact that the less interested children are in what they are studying, the more need they have for movement (Fadley & Hosler, 1979). Restak (1979) went so far as to say that schools are counterproductive to the movement needs of males. Typical male aggressiveness is squelched in school as boys are required to be more passive and conforming.

Thus, developmentally appropriate practice, in terms of attention and activity, requires a teacher to consider students' learning styles or preferences. Examples of such preferences include perceptual preferences, environmental preferences, sociological preferences, time-of-day preferences and mobility needs.

Children also exhibit vast individual differences with regard to *personal initiative*. Careful observation and informal discussions will help a teacher identify a child's interests and where the child takes personal initiative. This information

then can be translated into appropriate instruction, using a child's own initiative to extend attention and develop activity levels in a constructive way. Lilian Katz (1993a) refers to a child's "disposition" and how we can encourage certain dispositions. A child's disposition is reflected in her actions, intentions and intensity of concentration. A teacher who learns the child's personal initiatives, dispositions and interactions can better support development of concentration and attention, while simultaneously helping the child channel activity levels through appropriate avenues.

According to Katz (1993a), dispositions are learned behaviors. Teachers should consider carefully what dispositions they want to encourage. For instance, many teachers and parents would like to encourage kindness, persistence, responsibility and interest in learning. However, some of the traditional strategies used with children who have high activity levels and/or low concentration levels may actually inhibit certain dispositions. If we want children to persist and be interested in what they are learning, extrinsic rewards or a behavior modification system may actually discourage the very dispositions we are trying to develop (see Kohn, 1993).

Finally, Sibley and Aldridge (1996) suggest that children exhibit individual differences along three basic dimensions—*action, thought* and *relationships*. With regard to action, some children are more *reflective* while others are more *venturing*. With thought, children function on a continuum from the *practical-oriented* to the more *possibility-inclined*. As for relationships, some children are more *interrelational* while others prefer *independence*. A wide range of variations exists along these three continuums (action, thought and relationships). Children who appear to have attention or activity level differences may just exhibit differences in action, thought or relationships that "annoy" the teacher.

> Extrinsic rewards or a behavior modification system may actually discourage the very dispositions we are trying to develop.

Contextual and Cultural Influences. Developmentally appropriate practice can be achieved for children with attention and activity differences only after a thorough investigation of contextual and cultural variables. A child's cultural and familial expectations for attention and activity levels may vary significantly from the teacher's. Parent/teacher conferences and home visits are two ways to develop insights into these cultural and familial expectations.

Carol was diagnosed in kindergarten as having AD(H)D. In the 1st grade she constantly fidgeted and was easily distracted. She had four older siblings who attended the same elementary school. All four were diagnosed with AD(H)D.

During a parent conference, the teacher noticed that Carol's mother was easily distracted and nervous. Several home visits were also revealing. The mother was in constant motion, chasing pets and children throughout the house. She became easily distracted by noises, such as the television or cars outside. Does this mean that we should view Carol's mother, siblings and her entire family as dysfunctional or pathological? Certainly not. Carol's mother showed numerous strengths concerning her children. She took a proactive role in their education and was cooperative and collaborative with her children's teachers, albeit in a highly active, impulsive manner. She did not expect her children to sit still in school. The mother's temperament and her expectations served as a model for the children. The teacher better understood Carol's activity and attention levels after participating in multiple contexts with family members and after numerous home visits. The teacher then was able to jointly plan and communicate what was expected of Carol in 1st grade. This was done by viewing the mother as an ally instead of a foe.

More often, the opposite is true. Parents may expect a child to sit and listen all day, completing worksheets with little movement or physical activity. Again, a healthy dialogue and collaboration with the parents or guardians can help them understand a teacher's developmentally appropriate expectations. Many teachers often use the first collective meeting with parents (sometimes called open house) to articulate the goals and expectations of the classroom. This way, parents can be enlisted to appropriately increase a child's attention and seek positive ways to channel a child's high activity level.

The subculture of the classroom is one of the most salient contexts influencing attention and activity levels of children. Unfortunately, some teachers literally create attention and activity difficulties for children through the use of inappropriate practices such as long periods of sitting and listening, worksheets, fragmentation, unnecessary skill-and-drill, homogeneous grouping, and a heavy emphasis on standardized tests (Aldridge, 1993; Manning & Manning, 1981). The use of dull or boring textbooks is another problem that exacerbates attention and impulsivity problems for children. According to Neil Postman (1995), we should throw all textbooks away and use more authentic, real world literature.

In general, education based on developmentally appropriate practice will positively increase children's attention and work with children's high activity levels. As stated earlier, many physicians, psychologists and educators suggest a more structured approach to attention and impulsivity. A teacher who uses developmentally appropriate practice, however, will seek to provide the right amount of structure for each child, whatever that structure might be.

The Universals of Activity and Attention Development. While contextual and cultural considerations are imperative, we must not forget the universals of development. Recently, Piaget and other researchers have been criticized for investigating universals. While every child is embedded in the culture and the culture is embedded in the child, certain universals of development still must be consid-

ered. No matter what the child's background, some commonalities related to attention do exist. In order to develop attention, for example, every child must do five things. First, she must come to attention. Then, she must focus her attention on something. Next, she must maintain her attention, extend attention and simultaneously resist distractions. Teachers who want to help children develop attention appropriately should remember these five universals. To concentrate, we all come to attention, focus our attention, sustain it, extend it and resist extraneous stimuli. How to develop these five areas will be described later in the book.

Teleological Considerations. Teleology means that development is headed in a particular direction or end state. Some people might describe Piaget's theory as teleological, in that we are moving toward formal operations. On the other hand, Bronfenbrenner's theory is not teleological because there are multiple possibilities, directions and end states that might occur in any child, depending on the circumstances. Therefore, a good question to ask is, "What does teleology have to do with attention and activity levels in children?" The answer would be in the form of another question, "Where does what we are doing (with regard to attention and activity) lead?" Behavior modification and cognitive-behavior modification are the two most recommended practices for children with AD(H)D. But where is this trend going? According to Alfie Kohn (1993), it will probably make the problem worse. When children are rewarded for attending or modifying their activity level, they learn to change for precisely that reason—the reward. A practice such as behavior modification rarely takes into account a child's natural curiosity and initiative, legitimate purposes for learning, authentic learning, meaningful contexts, or even the child's prior knowledge. There is no emphasis on developing instrinsic motivation. This is not to say that behavior modification should never be used. Indeed, anyone who has worked with a class of 25 or more children, many of whom are inattentive and overactive, will have used some form of behaviorism, or at least considered it. A teacher using behavior management principles, however, should continually ask, "Where is this headed?" and "How can I move from this to assist the students in becoming more responsible for their own behavior?"

General Recommendations on Developmentally Appropriate Practice for Children with Attention and Activity Level Differences

Despite the fact that children are different in terms of their developmental levels, individual variations and overall contexts, several generalizations can be made in helping children learn to attend and utilize their activity levels. These general suggestions will be expanded later in the book with specific, practical suggestions for working with preschool/kindergarten, elementary and middle school students.

1. ***Coordinate both teacher-directed and child-selected activities.*** The project approach (Katz & Chard, 1989) is one example of how this method works. For example, a class may be studying rocks, but individual children (and groups)

may select a subtopic of rocks as the focus of a more in-depth study. The teacher provides needed support to help children focus and sustain attention, while students investigate the subtopic. Children who have attention and activity difficulties during the project may not have the skills to participate effectively. Here, the teacher provides direct instruction or scaffolds learning as the child develops the strategies necessary to complete the project (Bodrova & Leong, 1996).

2. ***Provide (or collaboratively create) a legitimate purpose for learning.*** Students develop their attention and channel their activity appropriately when they see a legitimate reason for learning. For example, why should students write neatly and spell correctly? If they are taking notes or writing a first draft they do not need to be neat and letter-perfect. If they are going to publish a story in book form that everyone will read, however, they must write neatly and spell correctly. Students are more willing to focus their attention on the mechanics of learning when there is an important reason for doing so.

3. ***Design authentic learning experiences.*** Find out what students are interested in and what they would like to study and then explore their research questions about the topic. In this way, authentic units of study can be developed. Often, the prescribed curriculum is either trivial or developmentally inappropriate. Many commercial companies, for example, publish units on a variety of topics. Teachers evaluating these products should always ask, "Are these units authentic? Are they of real world value for the students?" One school system requires that kindergarten children complete a unit on "air." Most concepts about air are far above the children's developmental levels. Consequently, teachers resort to nonsense or cute activities for the unit, such as placing cotton ball clouds on blue construction paper. If students are to develop attention and channel energy, more authentic experiences must be employed.

4. ***Provide instruction embedded in meaningful contexts.*** Learning activities prescribed for children with attention, concentration and movement difficulties are often decontextualized, small bits and pieces (Aldridge & Box, 1993). Rather than encourage children to persist at an authentic text in a meaningful context, these strategies often inhibit the development of attention. Children with attention problems receive math problems five at a time, rather than a whole page of 25 problems. What meaning does this activity have? Students will sustain attention longer if the math assignment is to choose a number of items from a toy catalogue without exceeding a prescribed budget.

5. ***Always deal with prior knowledge of the students.*** Many activity and attention problems can be found in classrooms where students have limited prior knowledge about what they are studying. Teachers can deal with this situation easily by using the K-W-L strategy, which stands for "What We Know/What We Want To Know/What We Learned" (Ogle, 1986). By the time students get to middle school they may not want to know anything about a topic. And yet the prescribed curriculum, which must be followed, has certain content that students are to learn. In such cases, the teacher can still take into account students' prior

knowledge with an adaptation of K-W-L known as K-N-L, which stands for "What We Know / What We Need To Know / What We Learned."

6. ***Assist children one-on-one in focusing and maintaining attention.*** Scaffolding is one way to accomplish this goal (Bodrova & Leong, 1996; Wood, Bruner & Ross, 1976). Scaffolding provides just the amount of support needed, but no more. A child may need to have a strategy modeled by the teacher or the teacher may need to help the child with initial attempts at a project. Subsequently, more and more of the support is withdrawn as the child masters the task, becomes more and more interested, and extends attention and concentration.

7. ***Provide multi-age grouping whenever possible.*** Contrary to popular belief, multi-age groupings help children develop and strengthen attention. Younger children have older, more able peers as models, while older children learn to better focus attention by helping to support their work with younger students.

In conclusion, developmentally appropriate practice for children with attention and activity level differences depends upon careful consideration of children's developmental levels and individual variations, contextual and cultural influences, universals and teleological considerations. Furthermore, a balance between teacher-initiated and child-selected activities should be the goal, as well as a legitimate purpose for learning, authentic learning experiences and instruction embedded in meaningful contexts. Children often need one-on-one assistance in focusing and maintaining attention. Scaffolding learning in multi-age settings is often a useful way to provide this assistance. The following chapter will provide more specific strategies for working with children's attention and activity levels.

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Chapter 7

Specific Strategies for Working with Students

So far we have examined everything from the development of attention to the effect of a teacher's philosophy on classroom structure and from cultural and familial variations to developmentally appropriate practice. What about specific strategies for working with children who have attention or activity level differences? In this chapter, we will describe specific ways to develop attention in inattentive and distractible students and possible ways to help impulsive and overactive children think about their actions.

Helping Inattentive and Distractible Students Develop Attention

First of all, inattention and distractibility are far from the same thing. In fact, some people consider them to be opposites: inattentive children pay attention to nothing and distractible children pay attention to everything. In reality, however, both types of children have had trouble with the development of attention. They can be helped in a variety of ways, including: 1) unit or theme development, 2) projects and 3) organizational strategies.

Unit or Theme Development. Let's start with very young children. Few would deny that preschoolers have limited attention spans. It is often difficult to tell the difference between normal attention and inattention in early childhood (Eddowes & Aldridge, 1990). How, then, do we help them develop their attention? One way is through the theme, unit or topic that the children are studying.

Take, for example, a kindergarten class that is studying trains (because the school is near a railroad station). Children in kindergarten cannot be expected to sit and listen to the teacher talk about trains for long periods of time. Yet, they still need to develop their attention. How can we teach the unit on trains and help children extend their attention? An effective way of proceeding is to help children focus on the topic, while supporting them in moving through several activities during the day that are related to the topic. The activities will support different developmental areas, but are all related to the same unit or topic of study (Eddowes, 1974).

A child who is either inattentive or easily distracted will need guidance from the teacher to move through the activities. First, the entire class may listen to a story about trains. They then can begin working on related activities. If possible (within the classroom management system in use), children should be able to choose their initial activities. That decision-making ability should help the child come to attention—the first requirement for developing attention (as outlined in Chapter 6). An interest in the activity should help her focus her attention—the second requirement. If the child has difficulty with the activity, an observant teacher can help her maintain her attention—the third requirement—by giving

appropriate assistance. For example, if the child's attention wanes because she cannot fit in a puzzle piece, the teacher might suggest that she turn the piece around.

As the child completes this task, the teacher may help her extend her attention—the fourth requirement—by suggesting she move to the art center where she can paint or draw a picture of a train. She will be approaching the topic of "train" in a different way. Next, the child will need support in the transition to the block center, where she can build a train out of blocks or other materials. By then, the child may need some physical activity and can be encouraged to play with a toy train. Another activity might be looking at pictures or books about trains. If possible, it is better for the child to spend longer periods of time with fewer, different activities. This may not be possible at first, but the teacher should have it as a goal for the child. Resistance to distractions—the fifth requirement—depends on the individual child. Sometimes the interest of the child in the topic/activity will help in this area. At other times the child may prefer to do the activity in a space apart from other children in order to become engrossed enough in the activity to resist distractions.

Throughout the day, the child has focused on the unit of study. A variety of activities have been used to support and direct the child's attention. While the child is active and moving, she is learning to extend her attention through the unit lessons. Other activities on other days can further extend both knowledge of the topic and sustained attention. *Remember*, do not interrupt a child who is engaged in an activity unless it is obvious that assistance is needed.

Projects. As children reach the elementary grades and above, projects can be used to assist them in the development of attention. Specific individual or group projects can be developed around the unit or topic of study. Katz and Chard (1989) have written extensively on how to implement the project approach. After visiting the Reggio Emilia schools in Italy, however, Katz (1993b) found that educators in the United States can learn much about projects, and particularly the development of attention, from the Reggio Emilia schools. While we should be cautious in attempting to adopt or adapt strategies from another cultural milieu, we can learn a great deal from the Reggio Emilia teachers about developing and extending attention.

Katz (1993b) found the following features of the Reggio Emilia schools to be helpful. These same features can be used to develop and extend attention in preschool, kindergarten, primary and even upper elementary children.

1. Children's ideas are taken very seriously. Teachers listen to children's ideas about projects and work to help children extend and refine them.

2. Multiple forms of representation are treated with respect. In the United States, educators generally use language as the only or the most important form of representation. When children are allowed to use their strengths and interests in representing what they are studying, their attention will develop because they

have an opportunity to explore forms of representation that appeal to them.

3. One of the most important points we can learn from Reggio Emilia schools is that the content of adult-child interactions is focused on the children's work. If teachers talk to children about the children's work, then the students can better attend and focus on it.

4. Children have a sense of what is important to adults through these interactions. Ask any child, "What is important to your teacher?" The replies from most children who grow up in the U.S. will indicate custodial issues: "My teacher is concerned about lining up, sitting still, behaving, being quiet," etc. Because Reggio teachers talk to the children mostly about the children's work, Italian children are more likely to say, "My drawings and my writing are important to my teacher." If we want to extend children's attention, then we must focus on valuing and refining their project representations.

5. Another important lesson we can learn from Reggio Emilia is that children's representations are used as working models that can be expanded. American children often fall into the "refrigerator art syndrome," in which they draw a picture, take it home and stick it on the refrigerator; ultimately, it ends up in the trash. In Reggio Emilia schools, children's drawings, writings and other forms of representation are revisited again and again. This continuity naturally develops, extends and refines the children's attention.

Organizational Strategies. As children develop their attention, they need guidance in organizing their work. Sometimes children are inattentive or distracted because they are overwhelmed by the amount of (busy) work we expect them to accomplish. At other times, they may be inattentive or distracted because the work is either boring, too easy or too difficult. Whatever the reason, children need assistance in organizing the vast amount of information they are expected to learn. Three examples of such an organization are: webbing, text renderings and "Reminders; I wonder; and Questions."

Webbing is a well-known strategy for organizing many things. It is highly effective in helping students organize information to study for tests. One way to web is to draw a circle in the middle of the page, placing the main topic in the center of the circle. Supporting details then can be organized in tiers on spokes. An AD(H)D college student who was having difficulty learning and paying attention in his Western Civilization class found webbing to be the most useful technique for taking notes and studying for tests.

Text Renderings also work with older students who have attention difficulties. A text rendering involves the student in focusing on his reading. The student is asked to identify the most noteworthy *sentence, phrase* and *word* in a particular passage. The student might then be asked to explain why he found that sentence, phrase and word to be the most noteworthy.

Reminders; I wonder; and Questions also can be used to help the student focus on interacting with print. As the student reads a passage, he is asked the following

questions: What does the passage *remind* you of? What do you *wonder* about after reading this passage? What *questions* would you like to ask the author about this passage? Students learning how to use this strategy may need to focus on just one question at first, such as "reminders." Later, the student can be taught to simultaneously think about reminders, I wonder, and questions for the author.

Helping Impulsive and Overactive Students To Think About their Actions

In Chapter 3, we described several highly structured management systems for controlling impulsive and overactive students. Approaches such as assertive discipline, contracts or token economies do little to help children think about their actions. While many professionals will argue that "this is a good place to start," we argue that is it not a good place to finish because students are not moving toward thinking about and taking control over their own actions. One specific way to help impulsive and overactive students is to use sanctions by reciprocity. Sanctions are defined here as natural consequences that help develop children's abilities to think and take some responsibility for their own actions. As mentioned briefly in Chapter 3, four sanctions are: 1) temporary exclusion from the group, 2) calling the child's attention to the consequences of his actions, 3) depriving the child of that which he has misused and, finally, 4) restitution.

> Restitution does not label children and may be an effective way of helping impulsive or overactive children.

Temporary Exclusion from the Group. Impulsive and overactive children often disturb group or class processes. This effect is particularly noticeable when class meetings or independent group work is continually interrupted by the impulsive or hyperactive child. With exclusion from the group, the child is asked to leave *until he can participate appropriately in the group*. Of course, this strategy does not work with all children. An introvert may leave and never choose to participate in the group again! Children who enjoy group attention, however, are encouraged to think about their actions and then return when they can contribute and participate appropriately.

Calling the Child's Attention to the Consequences of His Actions. If a child is breaking crayons that are class property, the teacher will point out, "Once you've broken all of the crayons, we won't have any to use." Now, if you have ever worked with children, you realize that this does not always work, either. Many children will say, "I don't care." And so, you move on to the next sanction. . . .

Depriving the Child of That Which He Has Misused. A natural consequence of breaking crayons would be that you do not get to use them. Once again, this sanction will not bother some children. "I don't care," they may respond. This brings us to one of the best ways to help children think about their actions—

restitution.

Restitution. Restitution is defined as "making good that which you have wronged." If you spill the paint, you must clean it up. If you break the crayons, then you must replace them. You do not have to be sorry. It might have been an accident. What matters is the fact that you have to make good that which you have wronged.

Impulsive and overactive children often get into trouble and are sometimes considered to be "bad" or "mean" children. Restitution does not label children and may be an effective way of helping impulsive or overactive children.

The following is an example of how restitution worked in one classroom. An impulsive 4th-grader accidentally spilled paint on another child's pants. The teacher said, without malice, "I know you did not mean to do this, but you need to make amends." She asked the child whose pants were paint-stained to bring them to school the next day; the child who spilled the paint would take the pants home to wash and clean them. The teacher then called the parents of the impulsive child to explain that *they were not to clean the trousers—the child was.* This is an important point about restitution. If the child is to make amends, he must seek ways to do it himself. We can be supportive and make suggestions, of course, but it is up to the child to make it right.

The impulsive child took the trousers home the next day and tried to wash them in the sink, but the paint would not come out. Finally, the boy asked his mother for suggestions and she suggested he use a particular spray on the paint and then wash the pants in the washing machine. She showed him how to use the spray and the washing machine, but she did not do it for him. He followed his mother's advice and the paint washed out. Although he learned this lesson 30 years ago, it is one of the few things this student remembers about 4th grade.

Sometimes overactive or impulsive students are explosive, and restitution cannot occur until the child has a (hopefully brief) cooling-down period. After the child has calmed down, restitution can be discussed. Otherwise, the teacher and student may get locked into a nasty battle of wills, at which point the student is not thinking about his actions—he is thinking about revenge!

At other times, natural consequences are not possible. If a child knocks another child off the slide, for example, and that child breaks an arm, the culprit cannot play doctor. The child *can* be responsible, however, for helping "take care of the child" while he or she recovers. This could mean taking homework to the injured child's house, carrying the hurt child's books, etc. Since restitution and sanctions focus on helping a child think about his actions, another way to handle this is for the child to suggest ways to make restitution.

In this chapter, we have considered ways to help inattentive and distractible children develop and extend their attention. We also have looked at sanctions by reciprocity as a way to encourage impulsive or overactive children to think about their actions. Sanctions and restitution are only successful when educators work collaboratively with families.

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Chapter 8

Working Collaboratively with Families

How do families operate when one or more children in the family have attention or activity level differences? To answer this question, we interviewed parents of children with AD(H)D, as well as an early adolescent with AD(H)D and his sister. We focused on their concerns, issues, hopes and suggestions for teachers. In this chapter, we provide four case studies of children and their families who are coping with AD(H)D. Several issues important to families, especially those related to schools, will be described. Through these case studies we attempt to show the importance of listening to what families have to tell us so that we can work collaboratively with them.

Case Study Number One

Shane is the mother of John, an 11-year-old 4th-grader who was diagnosed with AD(H)D the second semester of his kindergarten year. John's AD(H)D is accompanied by other situations that also concern Shane, as well as John's teachers. For example, John was born with a cleft palate and also has been identified as a child with a learning disability.

John's mother first noticed that he was very active as a child, but she thought he was just "being a boy." She did not know he was different until he started school. Shortly after John started school he was placed on Ritalin. His teacher said it was not helping and so the physician kept raising the dosage until John developed tics and dark circles under his eyes, and, in Shane's words "began to act like a zombie." When Shane mentioned this to the doctor, the physician said he did not want to change the medication. According to him, it was fine for John to be docile—at least he was not jumping up and down. Finally, Shane took John to a physician who specialized in AD(H)D and he took John off Ritalin. He tried several different combinations of medications. This physician talked with John's teacher and conferred with her about his behavior. Finally, John was placed on Dexadrine, which he has been taking for four years.

In school, modifications needed to be made for John, beginning in the 1st grade. During that year he was given less written work and also was tested for learning disabilities. He has been in speech therapy since age 3 because of his cleft palate, and he began receiving special help for learning disabilities in the 2nd grade. Currently, John is receiving help for AD(H)D through Section 504 of the Rehabilitation Act of 1973, and has an IEP in special education (because of his learning disability). The teacher of children with learning disabilities helps choose John's teachers each year and works closely with John's mother.

Still, John continues to be challenged by school experiences. One of his teachers believes that he has too much help from home for his homework. Shane wishes

John's teachers would understand that every day is different for him. Today he might be able to do the work, but tomorrow he might not. She wishes teachers were more flexible about understanding John's needs.

All of the news, however, is not bad. John loves science and working with his hands. Recently, he took apart a machine and put it back together. He also enjoys technology. He wants to be a scientist when he grows up. This is a critical time in John's school career that will help determine his future direction. Shane worries that John's teachers are too flippant, and that they do not take his aspirations, hopes and dreams seriously.

John is doing better this year with socialization. He is learning to get along with other children and the counselor works with him on social skills. His ability in this area has greatly improved since 3rd grade. Even so, problems persist. The previous year, John was in an after-school program in which the kids picked on him. On one occasion, children grouped together to tease and taunt John. This so upset him that he ran and hid under a piece of equipment and banged his head against the wall. He said he did not want to live. Later, his teacher took him to McDonald's to talk about this problem.

Shane has specific ideas about how schools and teachers can work with John and the family. She believes teachers should communicate more often with her than is usual, to help plan the most appropriate program for John. She also is concerned that the school and teachers do not respect her or John's situation enough. While some teachers see Shane as an overprotective mother, she sees herself as simply being concerned for her child and wanting the best for him. One of the worst things teachers do, in her opinion, is patronize her and treat her and John in a condescending manner.

Case Study Number Two

Carol and Paul have three children—Paul Jr., age 11, who is described as normal, independent and responsible; Matt, age 9, who is in 3rd grade and has been diagnosed with AD(H)D; and Jake, age 6, who also has been diagnosed with AD(H)D. The family is considered middle class and lives in a semi-rural area. The children attend schools in the local town system, which, Carol reports, has an excellent reputation.

One of the important things we can learn from this family is how two siblings, both diagnosed with AD(H)D, can be so different. Matt, the 9-year-old, differed noticeably from other children by 1 year of age. He would not stop rocking—in bed, in a chair, or on the floor. In kindergarten, he began to have problems. He did not want to have anything to do with paper-and-pencil activities. He had trouble getting along with other children. Carol described him as always "out of sorts." The school tried behavior modification techniques with Matt, but after a month or so, their benefits would "wear off." One bad incident would ruin the whole day for him. His greatest difficulties were fitting in, impulsivity and what Carol described as "off-the-wall" behaviors.

In school, Matt is prone to blurting out things. Carol is working collaboratively with the teachers and Matt to help him on this. She reports that his mouth just gets him into so much trouble and he has extreme difficulties focusing and staying on task. Carol says that the teacher really makes a difference. According to her, Matt has had really good teachers every year but one. She emphasized that this teacher was not a bad teacher. She just did not know what to do with Matt. Another child in the class took even more of the teacher's time and energy than Matt did. Matt was just struggling to get by. Carol says the teacher would tell her a lot about the troubles Matt was having. When Carol would ask the teacher if she had any suggestions, however, the teacher did not have any. So, Carol would suggest trying different strategies with Matt. The teacher said she wanted to hear what would help, yet she never implemented any of Carol's suggestions.

This year, Carol is very pleased with Matt's school. Matt is not identified for special education services and does not have an IEP. All of Matt's teachers seem concerned and cooperative and have worked hard to provide Matt with appropriate experiences. One important difference about this year is that before school started, Carol sat down with the principal, the school psychologist and all of Matt's teachers to discuss ways to accommodate Matt. Carol says she is fortunate that the school system has a school psychologist (Dr. Markus) who deals with children who have these difficulties. Before each school year, Carol meets with the principal, the teachers and Dr. Markus to discuss what modifications can be done for both Matt and Jake.

Jake, the 6-year-old, is quite different from Matt. Unlike Matt, Jake was not so different from other children as a preschooler. Jake was 4 when they began to notice symptoms of inattention and activity level differences. Jake was diagnosed with AD(H)D when he was almost 5. Carol says that he often is considered to be stubborn. It is not so much that he does not want to do what he is told; he is just sure that his way of doing something is better. This attitude makes him appear to be defiant. His greatest difficulties in school relate to his hyperactivity and impulsivity. Still, Carol and Paul are confident that Jake will succeed. Paul describes him as a child who can excel in anything.

Paul explains that Jake's impulsiveness has led him into a lot of trouble. For example, his bedroom is upstairs, and he occasionally tries to raise the windows. There is an 8-foot drop to the ground and once Jake decided to jump out and see what it was like to go through the air like Superman. On another occasion, he tried holding onto the electric garage door so that he could ride it up and down.

When Jake was 4 years old, he took a penny and put it behind his night-light and blew the circuit. He pulled the night-light out enough to let the penny drop down on the prongs. It burned the penny in half. When Carol arrived to see what had happened, Jake exclaimed, "You should have seen it. The fireworks went everywhere!" He was amazed and thrilled by what he had done. Carol was surprised that he was not hurt.

Matt never got into that kind of trouble. Occasionally, he has packed his bags,

saying he was going to run away. He would walk out of sight and then stop and come back. Carol went on to report that Matt has other problems, such as not eating or sleeping well, and he has no friends—something that is of great concern to her. According to Carol, Matt tries hard to win friends, but he acts silly with people, and they just push him away. His relationships with other kids are one-sided. Children will not return his phone calls. Paul attributes some of this to his immaturity. He is 9, but he acts like he is 4.

Carol and Paul are concerned about the future. Right now, both parents say they take one day at a time—which is all they can handle. Paul adds a very important point for teachers, suggesting, "Teachers need to be more aware of attention and activity disorders in children, and the differences among various children. Our own two children are so very different and they both have AD(H)D. No two AD(H)D children are alike."

Case Study Number Three

What happens when children with attention and activity level differences reach high school? Andrea, the mother of a 16-year-old high school junior named David, describes his experiences. David is an excellent student, but he was diagnosed with AD(H)D in 1st grade. He began taking Ritalin while still in the 1st grade. He took it regularly until the 4th grade. Eventually, he was taken off medication for periods when it was thought that he might be able to do without it. In the 4th grade his CAT scores were the lowest ever. In 5th grade, however, he resumed taking medication during school time. Andrea observed a marked difference in his schoolwork and test scores.

> Chris's difficulties with attention and impulsivity are not just issues for school. His difference has changed the context of the family.

Andrea first noticed a difference in David during his kindergarten year. He did not participate as much as the other children did. He would have difficulty in circle time and also at rest time. Unfortunately, his teacher was very uncooperative. By 3rd grade, David was classified as a child with learning disabilities (in the area of reading). He went to a special class for reading instruction.

By 3rd grade, David was having some real problems in school. He could do the work, but he could not remember the assignments. He had difficulty concentrating, completing assignments and applying visual memory—specifically, copying from the board to his paper. Some of the better teachers would allow him to copy some classwork from paper instead of the board if assignments were too long. The resource teacher also helped him

to get organized, learn completion techniques for assignments, and acted as a mediator between David and his regular teachers.

In middle school, David was allowed preferential selection of teachers. He was given more time to complete class assignments as needed. When requested, he was given study guides for major tests in some classes. He was permitted to take only one semester exam per day, if needed.

In high school, schedules sometimes had to be changed to accommodate David's learning needs. He receives extra help, particularly tutoring by concerned teachers. In one class, he was allowed to bring a textbook home even though there were not enough books for everyone in the class.

One thing in David's favor is that Andrea is a teacher and has been a strong advocate for school modifications concerning David's education. Andrea believes that teachers need to be specific. For example, they should give good study guides when they are requested. Such modifications are more beneficial for students who like to make good grades, like David does. She suggests that teachers should be required to have some training in what attention deficit is and how to deal with it in the classroom. After all, so many children suffer because of it. Teachers often are not as understanding as they should be, Andrea believes. Attention and activity level differences cannot always be changed; sometimes they must be accommodated. Andrea went on to say, "What bothers me most about teachers is that they really don't understand that [attention and activity level differences] are physical problems. Usually when they do, they are more understanding and accommodating."

Case Study Number Four

Case four is the continuation of Chris's story. We began the prologue with Chris and continued his story in chapters 2 and 3. We have already described Chris's experience with diagnosis and schooling. Now we discuss Chris's influence on the family, his own version of the story, and his sister's (Karen) perceptions concerning Chris.

Chris's difficulties with attention and impulsivity are not just issues for school. His difference has changed the context of the family. He has two older sisters, who often have referred to the situation with Chris as "walking on eggshells." Because they were never sure what might set him off, they avoided anything that might cause a problem.

Family outings were always potentially explosive. On three separate occasions as a young child, Chris tried to open the car door and get out while the vehicle was moving. This always happened when he was very upset about something and did not have the coping resources to deal with it. One time he was mad when his father would not buy him a toy car. Another time he had left something at church and wanted to turn around and go back and get it. If Chris gets something in his head that he wants or wants to do, Melinda reports, he stays with it until he has worked out a way to get it. Fortunately, Melinda adds,

Chris does not mind working for something he wants. However, he can be very manipulative.

Chris's own version of the story. We have been reporting a lot in this chapter from parents' perspectives. But what do the children think? We conducted a structured interview with Chris to find out his own ideas about his AD(H)D. His responses illustrate his perceptions about his differences.

• *When did you first realize you were different in school?* Some time in the 3rd grade. That was the worst year I ever had in school. It started me off on a pattern of not liking school. In 4th grade, I began to not understand some things. I had problems with social studies, science and spelling—anything that required time to read and look for answers that had to then be written out.

• *What problems did you encounter in school?* The teacher would talk and it would be so boring that I then didn't pay attention. She would say one thing and the book would say something else. I'd get distracted by little things, like toy erasers or pencils, or anything. I'd look out the window, or play with anything I could use to imagine it was something else—anything I could play around with in my hands.

• *Did you feel different than other students?* Yes, like the teacher would let me do only part of problems in math. I never did understand some of the subjects like some of the other kids. Other kids got into it, like social studies, spelling, or health and I never did understand. Some things I understood better than others, though, like science in 5th grade. In 5th grade I did not understand math but I did in 6th grade.

• *How did this make you feel?* I felt like I was between the normal kids and the totally retarded kids. In 5th grade there was pressure to learn and do well because we were going to middle school. But, I did good in middle school.

• *What about the medication you began taking in 5th grade?* I just felt like it was helping so I didn't care. I just think when kids tease about it, they just don't know what they are talking about. It does help you to concentrate. I don't want to take it.

• *What advice can you give teachers when they have kids who have difficulty paying attention?* Teachers should ask kids if they need help. They need to make themselves more clear. Sometimes teachers give you stuff that is not in the book (and expect you to find answers.) They don't know how to explain stuff. Teachers don't need to waste time talking about their personal life when kids don't understand the subjects. They need to pay attention to kids who need help but not embarrass them in front of the whole class. Teachers need to be more clear with assignments. I don't like meetings when all teachers are present with the parents. Meetings should be held with kids privately.

• *What incidents can you remember that happened to you in school?* My 3rd-grade teacher put me where I could not see anybody and told me not to turn around. To see the assignments and classwork on the board I had to turn around. I was expected to know what was going on, so I turned around to see what she was talking about. She sent me to the office and I didn't make a good grade on that

assignment.

In 6th grade I had Miss Majors for three classes. After two or three weeks my friend and I thought she had it in for us because we did not pay attention. A feud went on between Miss Majors and the two of us all year long in reading and social studies. She would give us extra assignments and then we would do things to make her mad and get on her nerves. She didn't let us participate in class.

• *How do you envision high school as being?* Better than our school now. They are so strict on us at the middle school. I do not want to take medication. I want to do it myself. The biggest point I want to make is that teachers shouldn't be so hard on AD(H)D kids.

Karen's version of the story (Chris's older sister). We have seen Chris's story through his mother's eyes, and Chris, himself, has reported his own views. What about a sibling's view? The following information comes from an interview completed with Chris's older sister, Karen.

• *How did you feel about your brother when he was younger? Did you feel like something was different?* Yes, I felt like my brother acted up more than any of my friends' brothers and sisters. I thought he misbehaved or was a bad boy. At first I thought he wasn't being disciplined the right way. Then I realized he had a problem.

• *What made you think that?* He couldn't control his behaviors or actions. He couldn't act like most kids would act when he was being disciplined. He *couldn't* be disciplined.

• *How did you feel about him being different, being diagnosed as having AD(H)D?* I didn't think it was his fault and I thought he needed help. Sometimes I thought it would be easier if he were in a home or a clinic because my parents couldn't always control him. He is a lot different now. He definitely needed medication.

He should have been diagnosed earlier. Parents should not wait until the child has had three or four years of school to take them to a doctor for diagnosis. It would have been better if my brother would have had help in kindergarten or 1st grade, when he began having problems in school.

Conclusions

These four case studies provide some insights for how to work better with children who experience attention and activity level differences and their families. Although each case was different, several patterns emerged. The following is a list of some of these patterns with suggestions for ways to better accommodate families.

1. **The relationship between the child and the teacher is vital to the child's success.** A teacher who accepts the child and attempts to build a cooperative working partnership with the child and the family appears to make a big difference in the child's school success.

2. **Families and teachers who work to build on the child's strengths and interests promote more positive academic experiences.** In every case study the

child with AD(H)D had particular likes (such as science or music) and strengths. As is pointed out in other chapters, using the child's strengths to help compensate for weaknesses is a powerful tool for learning.

3. Teachers who take an active role in modifying assignments provide needed support for children with AD(H)D. As one parent said, "If the child can work 10 math problems, they can work 25." As children move toward middle and high school, however, they may experience a social stigma associated with the modification of assignments. Teachers should consider the social aspects of any modifications made.

4. Parents, administrators and support personnel (such as counselors or school psychologists) can work together to choose the *types* of teachers and experiences a child with AD(H)D should have. In the real world, parents do not generally choose their child's teacher. However, the *type* of teacher and the appropriate experiences and modifications a child should have can be communicated. Most administrators would be willing to listen to parents so that everyone's school experience (including the administrator's!) will be a pleasant one.

5. Flexible, non-authoritarian teachers appear to have more success with children with attention and activity level differences. Teachers who insist on everyone doing the same thing in the same way often have problems working with children who do not meet their expectations. Teachers who are willing to make adjustments and "go with the flow" provide a more supportive environment for children who have trouble in school.

6. Most types of transitions are difficult for children with AD(H)D. Transitions from activity to activity, class to class, and school to school create additional challenges for children with attention and activity problems. Extra attention and help may need to be given in these situations.

7. A multidisciplinary team is needed to provide the best school context. When physicians, pediatricians, counselors, school psychologists, administrators, teachers, parents and the children themselves work collaboratively over a long period of time, the result is a better education experience for everyone.

8. Parents want schools to listen to what they have to say. In each of the four cases in this chapter, parents pointed out, in one way or another, the importance of listening to their stories. Parents are the child's first teachers and they most often have had more experience with their child than anyone. Their voices need to be heard, valued and used. Sometimes parents just need someone to listen to them talk about their frustrations, hopes and dreams.

9. There are vast differences among children who have attention and activity level differences. Even when two siblings are diagnosed with AD(H)D, they are often more different than they are alike. Generalizing or stereotyping children with AD(H)D only compounds the problem. Some AD(H)D children are gifted. Some have learning disabilities. Some are eligible for special education services using other "labels" and some receive school services through Section 504 of the Rehabilitation Act of 1973.

10. Developmentally appropriate practice is a good starting place for most children. While modifications may be necessary, good teaching is good teaching. As one parent suggested, "The modifications the teacher made for my son were what I consider to be just good teaching."

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Chapter 9

Cultural and Familial Considerations and Variations in Expectations

"Look at me when I'm talking to you. I expect you to pay attention when I call your name. Do you understand?" Unfortunately, one 2nd-grade teacher made these statements to a new girl in her class. The child and her family recently had moved to Alabama from Nicaragua. Ironically, the child was paying attention, close attention, but the teacher did not know it. The child's parents had taught her to look down when an adult called her name. If you have misbehaved, this is a way of showing respect. You also look down because you may have shamed your family. This is how you show that you are sorry. Looking at the adult would be considered improper.

There are no easy answers to attention or activity level differences even when the children in a classroom are predominantly monocultural. When children from multiple backgrounds attend the same school, cultural and familial differences may compound our misunderstanding of attention or activity level expectations. Such was the case in the above example of the Nicaraguan child. In this chapter, we consider cultural and familial variations in expectations for children. Before we begin, a note of caution is in order. Intracultural differences in expectations are often as great or greater than intercultural variations. With this in mind, we will briefly explore attention and activity examples from three cultural milieus: African American, Native American and a specific Asian exemplar.

One African American Example

In order for a child to develop attention and appropriately modulate activity levels in school, a reciprocal validating process must exist between the teacher and that child (Phillips, 1994). A child experiences a certain organization of relationship in the family. When interactions between a teacher and child somewhat resemble family interactions, then home-school continuity occurs. When the relationship between teacher and child is quite different from home, however, then the child experiences discontinuity. Discontinuity is often apparent in an African American child's education and is noticeable as early as kindergarten (Phillips, 1994).

When a white, middle-class kindergarten teacher asks during circle time, "Who has something they would like to share?" she usually wants an answer that focuses on one topic. An African American child may move from topic to topic in what is known as a topic-chaining style (Michaels, 1980). A white, middle-class teacher who is unaware of this style may become annoyed with topic-chaining. This teacher would be likely to interrupt the child, asking her to get to the point

or to stick to one topic. Such a comment would throw the African American child off balance, interrupting her train of thought (Phillips, 1994).

If interactions as in the above example continue, the child may learn how to participate in the teacher's form of discourse. Or, the child may continue in her familial style of discourse and be labeled by the teacher as a child who cannot focus her attention. If the teacher remains inflexible, the child may withdraw, rebel or channel her activity in some other direction. If this occurs, the teacher would also characterize the child as overactive. In this case, the child's development of attention and her ability to channel her activity levels in school actually are being stifled through her interactions with the teacher.

One Native American Example

Once again, when interactions between a teacher and child are similar to the family interactions, then home-school continuity occurs, but when the interactions are different, discontinuity occurs. When a developmentally appropriate 3rd-grade teacher seeks to develop independence and self-initiation in his students, a Native American child may become marginalized (Williams, 1994).

A somewhat common scenario in a progressive elementary classroom would be for the teacher to have students develop their own questions about the theme or unit of study. Students are guided in their individual or collaborative research of the topic, and share their findings in a culminating activity.

A Native American child who has been taught at home through modeling and observation may have difficulty initiating questions or seeking answers through traditional school methods of classroom research. This problem is exacerbated by the need to share findings in front of the group. This whole process may run counter to some Native American families' expectations. Certain Native American families set up opportunities for a child to model learning and to listen, instead of offering chances for the child to initiate activities and learning experiences and then share what he has learned.

As with the African American child, this Native American child may learn to participate in the teacher's form of discourse. Or, the child may hold fast to familial expectations and withdraw, rebel or channel his attention and activity to other areas. If the latter reaction occurs, the teacher will most likely label the child as inattentive, uninterested, hypoactive or in need of special education. So once again, the child's development of attention may be hampered by his interactions with the teacher.

An Asian (Taiwanese) Example

Taiwanese families and schools have very different expectations with regard to children's development of attention (Hsue & Aldridge, 1995). In the United States, for example, the idea of fairness and equity for all children is a common expectation among families and schools. In Taiwan, however, the child who shows more interest in a topic receives more attention from the teacher. Parents, in general,

take a much more active role in their child's education, enrolling the child in after-school programs known as cram schools. Because of the intense competitiveness for places in secondary schools and higher education, structured learning begins early.

A 7th-grade math teacher who is teaching to the average student may not challenge a Taiwanese student who is interested in math, and whose parents have provided resources and additional instruction. Despite high familial expectations to respect and obey the teacher, the Taiwanese student may not be learning anything in the math class and may tune out. While the student may not cause any problems for the teacher, the child is not being appropriately challenged. In this case, the child's time is being wasted and her attention is not being channeled in appropriate ways.

Conclusions

In this brief chapter, we have seen how cultural and familial considerations, especially as they relate to instruction, strongly influence the development of attention and the expectations of activity levels in children. The following guidelines are suggested for working with parents and children from different cultures, as well as for dealing with our own prejudices or lack of understanding as they relate to the development of attention and activity.

General Guidelines for Working with Parents from Different Cultures

1. Find out as much as possible about the family's culture and expectations (through resources such as the Internet and through parent-teacher conferences).
2. Once you have thoroughly researched the culture, do not make generalizations about family expectations within the culture. Each family's expectations are different. Also, in today's postmodern world of single parent and blended families, expectations within the family structure may be very different.
3. Be a good listener and work to discover the appropriate means of interaction with parents.
4. Find out the nature of immigration (without making assumptions). For example, third-generation Chinese Americans from California may have different expectations and cultural practices regarding attention and activity levels than first-generation Taiwanese.
5. Discuss and observe how parents interact with their children. Ask parents about their expectations for their children.
6. Seek out the services of an appropriate interpreter for parents who do not speak English fluently.

General Guidelines for Working with Children from Different Cultures

1. Adjust your interactions with children to honor or respect their cultures.
2. Help children "code switch" when it is necessary to do so. In other words, while respecting the child's culture, teach the child the culture of the school. The

child from Nicaragua, for example, might be taught that some teachers expect children to look at them when they are talking. They can, of course, continue to look down when their parents call their name. Sometimes in school, however, teachers will expect eye contact. They can "code switch" between home and school.

3. Avoid practices that would exclude or devalue cultural or religious practices. In the three examples provided in this chapter, children were, perhaps unintentionally, excluded from classroom participation because of their cultural practices. Seek to modify methods of interaction to accommodate such differences.

4. Incorporate and explore celebrations from different cultures. For example, birthdays have different meanings in different cultures and there are different ways of celebrating them. In certain Chinese cultures, children are asked to reflect on the mother when celebrating birthdays rather than on themselves. Attention is focused in a different way.

5. Maintain high standards for acceptance of cultural diversity. If a Native American child has difficulty speaking in front of the group, for example, allow him to use other means to represent what he has learned. Expect others to respect this and other differences when children's learning is evaluated.

6. Explore with children how diversity contributes to the whole. The emphasis should be on how each part (culture/family) contributes to the whole—not on self-absorption.

General Guidelines for Dealing with Our Own Prejudices, Ignorance or Lack of Understanding About Other Cultures

1. Seek out and acknowledge your own prejudices.
2. Understand that you will make mistakes when working with other cultures.
3. Reflect on your own practices concerning such issues as autonomy, interactions with children, individual versus group experiences, independence versus interdependence and others.
4. Learn how to code switch when necessary and appropriate.
5. Continue to examine the goals of education (in general) and your curriculum practices (in particular) as they relate to cultural variations in the development of attention and activity level expectations.

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Epilogue

Directions for the Future: Where Do We Go from Here?

This book contains abundant information concerning children who appear to have problems with attention and activity. The first thing that we all can do is share the information with parents and teachers. They should understand that attention must be learned and that children's needs for activity should be channeled in meaningful ways. As we all know, some children have more trouble than others in mastering these skills.

When it becomes necessary to assess attention weaknesses in a child, it should be remembered that this type of diagnosis is not easy. Multiple observations over time and data from different settings should be required. Those involved should also realize that family, culture and temperament can be important variables to consider.

Most important, the teacher and school philosophy can make a huge difference in how children are able to learn to attend and manage their activity in the classroom. School programs must accommodate children with problems in these areas. It is easy to blame the children for their problems, yet that does not help them to learn the necessary skills. We must always remember that even when a child is taking medication to assist him, he still needs to *learn* to attend. The medication will not teach him—it will only make it easier for him to learn.

Information concerning attention problems and related issues should be included in all teacher education curricula. Inservice programs should be developed for current teachers to disseminate new information. They should have the opportunity to share information concerning what has worked for them. Possibly the most important thing that could happen in the future would be for parents, teachers and children to discuss attention/activity problems together. Many times, children understand the reasons for problems better than the adults do.

There is much we now know about attention/activity problems in children. However, more research is necessary to discover root causes and better ways for parents and teachers to interact with children. While there will never be easy answers, when the adults who work with children realize that each child is unique and has abundant strengths, we will all be winners!

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